

## Lynas Corporation Limited

A rare opportunity

- We initiate coverage on Lynas Corporation (LYC) with an Overweight rating and a \$0.91 Jun11 PT. LYC is a development-phase company in the rare earths industry. The Group is progressing an integrated rare earths project with a mining operation and concentration plant at Mt Weld in WA servicing an Advanced Materials Plant in Malaysia. Following a recent capital raising, the Group is now fully funded for Phase 1 of the project (11Ktpa rare earths oxide by FY12E) and has signed a number of customer offtake agreements. From there, LYC hopes to develop Phase 2 which would double production.
- We believe the fundamental outlook for rare earths is positive. Demand is supported by consumer electronics, hybrid vehicle technology and other environmental protection applications. The use of rare earths in neo-magnets and industrial applications in these industries is expected to drive global demand higher. Despite this expected growth in demand, the supply of rare earths remains scarce and is heavily skewed towards China. Recent Chinese government initiatives to limit marginal, unsafe supply and the level of exports are also adding to current market tightness. We expect these market dynamics to support prices over the medium term, especially since the near-term global supply response appears to be very limited (Figure 23). With LYC's integrated project the most advanced rare earths project outside China, we believe the Group possesses a strong first mover advantage and is in an excellent position to leverage these trends. Key investment risks include unexpected project delays and cost inflation, the proposed RSPT in Australia, geotechnical issues at Mt Weld, a sharp downturn in global rare earths prices and a stronger A\$.
- Our NPV valuation today is \$0.91 using our base case assumptions outlined in Table 2. Importantly, we do not believe the current share price fully reflects the potential valuation upside associated with the successful delivery of the expanded integrated rare earths project. We maintain a high degree of confidence that the project will succeed, and as such, we think now is the time for investors to consider an Overweight position in LYC. In doing so, we believe investors are well placed to leverage positive rare earths industry dynamics over the medium term. Positive near-term catalysts include the execution of further offtake agreements and the completion of the concentration plant at Mt Weld.

Lynas Corporation Limited (Reuters: LYC.AX, Bloomberg: LYC AU)

Year-end Jun (A\$)	FY09A	FY10E	FY11E	FY12E
Total Revenue (A\$ mn)	0	0	0	138
EBITDA (A\$ mn)	-38.8	-18.0	-19.4	51.1
Net profit after tax (A\$ mn)	-29.28	-9.12	-16.30	4.78
EPS (A\$)	-0.045	-0.008	-0.010	0.003
P/E (x)	NM	NM	NM	190.5
Cash flow per share (A\$)	-0.042	-0.017	-0.009	0.033
Dividend (A\$)	0.00	0.00	0.00	0.00
Net Yield (%)	0.0%	0.0%	0.0%	0.0%
Normalised* EPS (A\$)	-0.065	-0.006	-0.010	0.003
Normalised* EPS growth (%)	-25.7%	90.8%	-65.4%	129.3%
Normalised* P/E (x)	NM	NM	NM	190.5
Relative P/E (%)			0.0%	1561.8%

Source: Company data, Bloomberg, J.P. Morgan estimates.

### Initiation Overweight

LYC.AX, LYC AU

Price: A\$0.55

Price Target: A\$0.91

#### Mining

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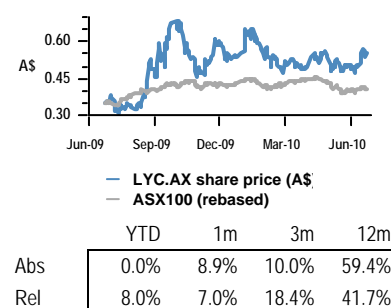
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#### Price Performance



Company Data	
52-week range (A\$)	0.72 - 0.30
Market capitalisation (A\$ bn)	0.91
Market capitalisation (\$ bn)	0.80
Fiscal Year End	Jun
Price (A\$)	0.55
Date Of Price	24 Jun 10
Shares outstanding (mn)	1,655.5
ASX100	3,670.2
ASX200-Ind	6,042.8
NTA/Sh^ (A\$)	0.56
Net Debt* (A\$ bn)	-0.38

See page 48 for analyst certification and important disclosures, including non-US analyst disclosures.

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## Investment View

The LYC share price has risen 59% over the past 12mths, outperforming the ASX 200 Resources Index by 42%. LYC is a development-phase company in the rare earths industry. The Group is progressing an integrated rare earths project with a mining operation and concentration plant at Mt Weld in Western Australia servicing an Advanced Materials Plant in Malaysia. Following a recent capital raising, the Group is now fully funded for Phase 1 of the project (11Ktpa rare earths oxide by FY12E). From there, LYC hopes to develop Phase 2 which would double production.

### **Rare earths industry dynamics very supportive**

We believe the fundamental outlook for rare earths is positive. Demand is supported by consumer electronics, hybrid vehicle technology and other environmental protection applications. Despite this expected growth in demand, the supply of rare earths remains scarce and is heavily skewed towards China. Recent Chinese government initiatives to limit marginal, unsafe supply and the level of exports are also adding to current market tightness. We expect these market dynamics to support prices over the medium term, especially since the near-term global supply response appears to be very limited (Figure 23). With LYC's integrated project the most advanced rare earths project outside China, we believe the Group possesses a strong first-mover advantage and is in an excellent position to leverage these trends.

### **Earnings growth**

We are currently forecasting a net loss of \$6.9m in FY10E, followed by a net loss of \$16.3m in FY11E. Upon completion of the Advanced Materials Plant, due in FY12E, we expect LYC to commence operational earnings and generate reported profits. We note that consensus estimates for LYC are virtually non-existent making comparisons with our forecasts impossible.

### **Risks include unexpected project delays and costs, product pricing and FX**

Although development of the Mt Weld mine is complete, there are still risks associated with the timely completion of the concentration plant at Mt Weld and the Advanced Minerals Plant in Malaysia. We note that unexpected project delays and/or higher than expected construction costs may lower our net present valuation of the integrated project. In other areas, our base case valuation would be modestly impacted by the implementation of an RSPT in Australia. Other investment risks include a sharp downturn in rare earths prices and a sustained stronger A\$/US\$ rate.

### **Corporate appeal?**

The LYC share register is very open and there are currently no substantial shareholders. As a result, we think a full acquisition of LYC, or at least the potential acquisition of a strategic interest by an external party, cannot be ruled out. We think possible acquirers include major industrial and manufacturing consumers of rare earths, including existing LYC customers. Government-backed entities are also a possibility, although we would discount the likelihood of Chinese government-backed entities receiving approval given FIRB recently rejected a bid for 51.6% of LYC by China's CNMC, citing China's already dominant control of global rare earths supply.

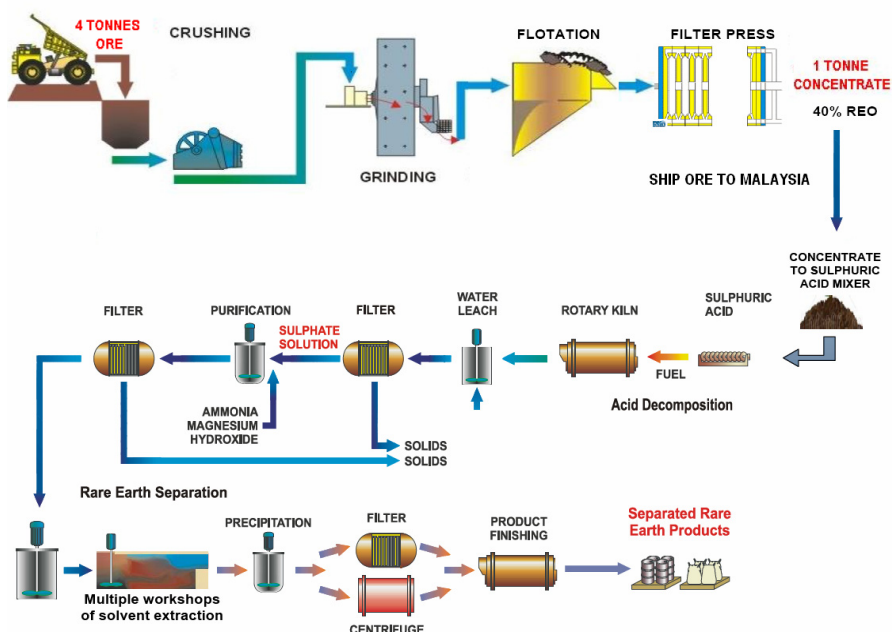
### **Valuation and price target**

Our base case NPV valuation is \$0.91/share, 65% above the current share price. Our base case assumptions and stress testing of these assumptions are discussed later in the report. Our Jun11 PT is also \$0.91/share, implying a 12mth total shareholder return of 66%. We initiate coverage on LYC with an Overweight recommendation.

## Executive Summary

Lynas Corporation (LYC) is developing an integrated rare earths project. This involves the development of the Mt Weld rare earths mine and concentration plant near Laverton, WA and the Advanced Materials Plant in Kuantan province, Malaysia. LYC expects to commence production from Mt Weld at the end of CY10E which will supply rare earths oxide (40%) to the Advanced Materials Plant (AMP). The AMP is expected to commence production in 3Q CY11E and will sell finished products to customers in Europe, Asia and the US.

Figure 1: LYC production process - Mt Weld to Advanced Materials Plant



Source: Company presentation

The rare earths market is growing rapidly driven by strong demand from the consumer electronics and automotive industries as well as manufacturers of environmentally-friendly products. Currently, the supply of rare earths is largely controlled by China. However, the Chinese government is imposing greater environmental and export regulations on its rare earths industry, which in turn is restricting export supply. Given these market dynamics, we expect rare earth prices to remain elevated for the foreseeable future.

Strategically, we believe LYC enjoys a number of competitive advantages, but in particular we would highlight:

- LYC has a strong “first mover” advantage given its integrated project is far more progressed than other competing projects (see Figure 23);
- LYC’s management team are highly regarded in the industry with a combined level of knowledge and experience that is not easily replicated, if at all; and
- Over time, LYC may have the capacity to process third party concentrate at its AMP which would consolidate LYC’s position as the leading non-Chinese supplier of rare earths.

To summarise the key growth drivers and risks, please see the Table below.

Table 1: LYC share price drivers and risks

Driver	Comment
Integrated rare earths project	We expect further progress on Phase 1 of the integrated rare earths project to be the key share price driver over the next 1-2yrs. Phase 1 is well progressed - it is fully funded, has received all necessary approvals and is underpinned by significant offtake agreements. Growing evidence that the project will actually be delivered on time and budget should be a source of share price support and may help to close the gap between our current base case valuation and the current share price. Key data points to watch for include the execution of additional customer offtake agreements, completion of the concentration plant at Mt Weld (due by end CY10E) and completion of the Advanced Materials Plant (due in 3Q CY11E).
Expansion of the integrated rare earths project	We value Phase 2 of the integrated rare earths project at \$0.56/share. We choose to include Phase 2 in our base case valuation because we have a reasonably high confidence level that the expansion will be ultimately sanctioned by the Group given the positive medium term rare earths market dynamics. Having said that, we note that the Phase 2 expansion is contingent on the successful completion of Phase 1 and we recognise that Phase 1 is still at risk from unexpected project delays and/or unforeseen cost overruns. Although the Group is yet to secure funding for Phase 2, we note that the proposed expansion is underpinned by offtake agreements with four separate customers.
Expected strong demand growth	We expect good demand growth for rare earths over the medium term, largely driven by increasing demand for magnets, battery alloys, polishing powders and automotive catalytic converters. It is perhaps a poorly understood fact that these applications play a pivotal role in modern life. Rare earths are critical in the production of neo magnets and polishing powders in the consumer electronics industry. They are also vital in developing hybrid vehicle technology, weight reduction in the automotive industry and development of better automotive catalytic converters and clean diesel technology. We expect demand for these devices and technologies to continue to increase, which in turn, supports the outlook for rare earths demand.
Tightening Chinese supply	LYC is the key future alternative supplier to Chinese supply. Chinese authorities have recently imposed various controls on the export of rare earths in a bid to shore up domestic supply against the backdrop of expected strong growth in the development of domestic-based higher value-add technology. We expect this dynamic to play into LYC's favour as continued Chinese supply restrictions keep rare earths prices elevated over the medium term.
Risk	Comment
Project delays and cost inflation	We cannot rule out the possibility of delays in the construction schedule for the integrated rare earths project. Delays could be caused by poor quality construction work that requires remediation, the insolvency of key contractors and unexpected variations in the project's design. In addition, it's possible the project is impacted by unforeseen cost inflation. This could also arise from material delays in the construction schedule. Both of these issues have the potential to reduce our base case valuation. For example, we note that a 1-year delay in commencement of full production as well as a 10% cost overrun would reduce our valuation by around 22% to \$0.71.
Resources Super Profits Tax	The proposed RSPT is a risk to all Australian-operating resources companies, not just LYC. However, we note that the potential impact on LYC is likely to be mitigated because the taxing point at which the RSPT is levied is at LYC's "transfer" price of the rare earths concentrate from Mt Weld to the Advanced Materials Plant in Malaysia. We estimate the transfer price is roughly 30% of the finished product price. Still, we estimate the implementation of the RSPT in its current form has the potential to reduce our base case valuation by around 10%.
Supply response to high prices	We believe a period of sustained high rare earths prices will inevitably illicit a supply response. Over time, we expect this may put downward pressure on rare earths prices. However, we note that many planned new developments are still in their infancy suggesting the market will remain in structural shortage over the short to medium term. Still, were we to see a faster than expected supply response there may be downside risk to our price forecasts, which in turn would decrease our base case valuation. We estimate that a 20% decline in rare earths prices from our base case forecasts over the forecast period could potentially reduce our valuation by around 50%.
Foreign exchange risk	The Group is exposed to A\$/US\$ rate fluctuations given its products will be sold in US\$ but around 25% of the cost base will be in A\$. LYC does not intend to undertake a hedging program for its foreign currency revenues. Therefore, LYC will be negatively impacted by sustained A\$/US\$ appreciation. We estimate that a 20% appreciation in the A\$/US\$ rate over our base case long-term forecast of 0.75 could potentially reduce our valuation by around 18%.

Source: J.P. Morgan estimates.

## Valuation

Our base case NPV valuation today is \$0.91 per share.

### NPV valuation of \$0.91

Our core NPV assumptions are shown in Table 2.

Key points include:

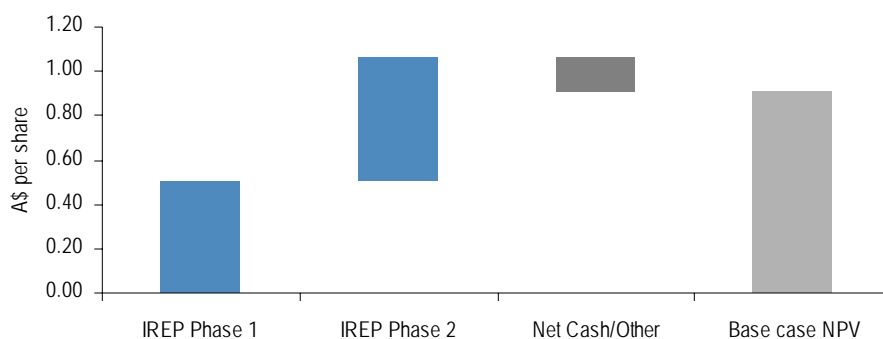
- We value the Integrated Rare Earths Project (IREP) Phase 1 at \$0.50/share. Our NPV is based on final capex for Phase 1 of \$550m, first production from the Advanced Materials Plant (AMP) in 4QCY11E and full production from the AMP (11Ktpa) in 1QCY12E.
- We value the IREP Phase 2 at \$0.56/share. Our NPV is based on \$120m of capex, first production at the increased production rate for the AMP (22Ktpa) in 3QCY12E and full production at the AMP in 2QCY13E.
- We inflate LYC's rare earths "basket" price at a rate of 2.5% p.a. Likewise, we inflate the Group's cost base at 2.5% p.a.
- We assume a WACC of 15%.
- We assume corporate overheads of around \$20m p.a.

Table 2: J.P. Morgan NPV valuation

NPV valuation (\$/share)	
Integrated Rare Earths Project (Phase 1)	0.50
Integrated Rare Earths Project (Phase 2)	0.56
Net Cash (Debt)	0.07
Corporate Costs/Other	(0.22)
<b>Total</b>	<b>0.91</b>
<b>Price/NPV</b>	<b>0.60x</b>

Source: J.P. Morgan estimates

Figure 2: J.P. Morgan's LYC NPV base case valuation



Source: J.P. Morgan estimates

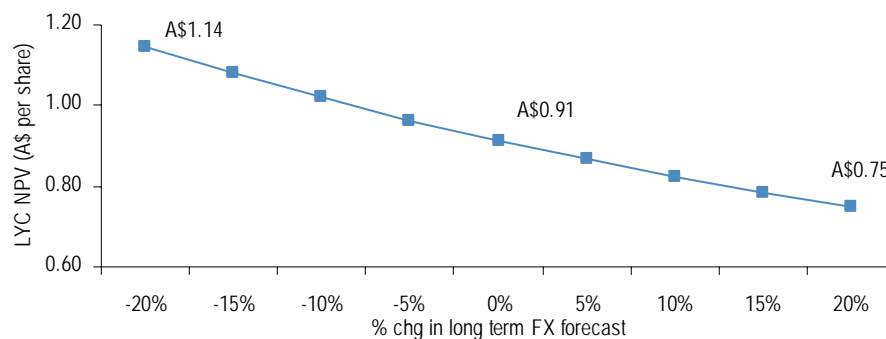
## Stress testing our base case valuation

In the following scenarios, we stress test our base case valuation for changes in key assumptions such as long-term currency assumptions, long-term rare earths prices and the implementation of an RSPT. We also stress test our valuation to changes to account for unexpected project delays and/or cost overruns.

### Long term currency assumptions

Below we outline the impact on our base case valuation from a variation in the A\$/US\$ from our base case forecasts (J.P. Morgan global economics team's long term forecast for the A\$:US\$ exchange rate of 0.75). We estimate a 20% appreciation of the A\$ over and above our base case forecasts would lead to an 18% reduction from our base case valuation

Figure 3: J.P. Morgan's LYC NPV - long run A\$:US\$ forecast stress test

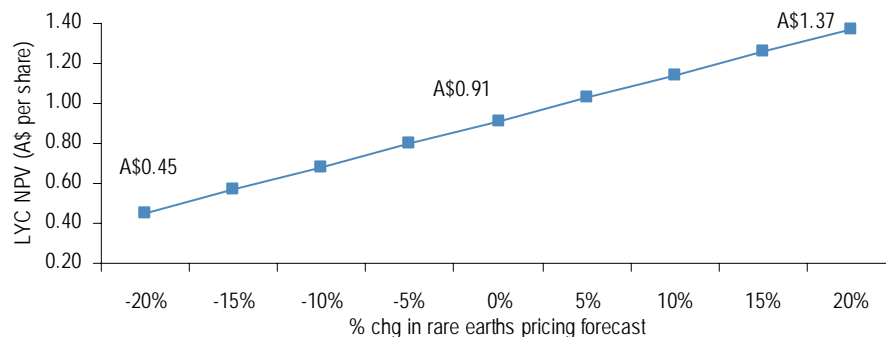


Source: J.P. Morgan estimates

### Long term rare earths price assumptions

Figure 4 below outlines our estimate of the impact on our base case NPV from a change in our rare earths price forecasts. We estimate that a +/-5% change in our rare earths price forecasts would lead to a +/-13% change in our base case NPV.

Figure 4: J.P. Morgan's LYC NPV - rare earths pricing forecast stress test



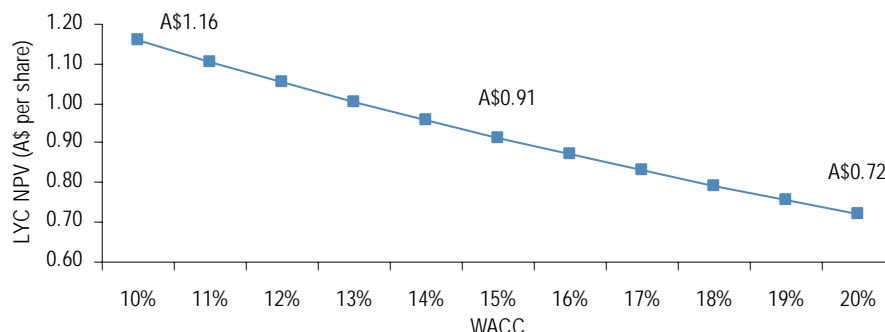
Source: J.P. Morgan estimates

### WACC assumptions

For our base case NPV, we assume a 15% WACC, which we feel is appropriate given that LYC is yet to achieve first production on IREP Phase 1. However, a +/-1% change in our WACC would lead to a -4.6%/+4.8% change in our base case NPV.



Figure 5: J.P. Morgan's LYC NPV - WACC forecast stress test



Source: J.P. Morgan estimates

**RSPT implementation assumptions**

The following table outlines the sensitivity to our LYC NPV assuming the RSPT is passed into law in its current form (i.e. hurdle rate equal to the long term government bond rate of around 6%).

Table 3: LYC NPV - impact of RSPT (current form)

	A\$ per share
LYC base case NPV	\$0.91
Less: NPV impact of RSPT	-\$0.09
LYC NPV post RSPT	\$0.82
% difference from base case NPV	-10.1%

Source: J.P. Morgan estimates

We have also run the sensitivity to our original NPV range at a hurdle rate similar to the current Petroleum Resource Rent Tax calculation (i.e. around 12%). Interestingly, given the small amount of capital deployed in Australia, a change in the hurdle rate has only a small impact on our post-RSPT NPV estimate of LYC.

Table 4: LYC NPV - impact of RSPT (increased hurdle rate to 12%)

	A\$ per share
LYC base case NPV	\$0.91
Less: NPV impact of RSPT	-\$0.09
LYC NPV post RSPT	\$0.82
% difference from base case NPV	-9.7%

Source: J.P. Morgan estimates

**Project delays and/or cost overruns scenarios**

To give investors a sense of the valuation sensitivity to changes in the construction schedule we have run a scenario which assumes the following:

- A one year delay in practical completion of the Advanced Materials Plant for IREP Phase 1;
- A one year delay in completing works on IREP Phase 2; and
- A 10% cost overrun from current capex estimates to reflect the increased costs associated with this delay for Phase 1.

Under this scenario, our NPV valuation for LYC would fall from \$0.91 per share to \$0.71 per share.

Table 5: LYC NPV - impact of project delays and cost overruns on IREP

	A\$ per share
LYC base case NPV	\$0.91
Impact of 1yr delay on IREP Phase 1 & 2	-\$0.14
Impact of 10% cost overrun on IREP Phase 1	-\$0.06
<b>LYC NPV after project delays &amp; cost overruns</b>	<b>\$0.71</b>
<i>% difference from base case NPV</i>	<i>-21.9%</i>

Source: J.P. Morgan estimates

## Our earnings forecasts

We expect LYC to generate operational earnings and reported net profits from FY12E once production commences at Mt Weld and the Advanced Materials Plant. We forecast net losses of \$6.9m in FY10E and \$16.3m in FY11E, followed by NPAT of \$4.8m in FY12.

Table 6: J.P. Morgan's LYC earnings forecasts

Year ending 30 June	2008A	2009A	2010E	2011E	2012E
Sales Revenue	0	0	0	0	138
EBITDA	(38)	(39)	(18)	(19)	51
Depreciation & Amortisation	(0)	(1)	(1)	(1)	(45)
<b>EBIT</b>	<b>(38)</b>	<b>(39)</b>	<b>(19)</b>	<b>(20)</b>	<b>6</b>
Net interest expense	(8)	3	(12)	(4)	1
Pre-tax profit	(30)	(42)	(7)	(16)	5
Tax expense	0	0	0	0	0
Associates	0	0	0	0	0
Minorities	0	0	0	0	0
<b>NPAT pre-abnormals</b>	<b>(30)</b>	<b>(42)</b>	<b>(7)</b>	<b>(16)</b>	<b>5</b>
Abnormals after tax	9	13	(2)	0	0
Reported net profit	(21)	(29)	(9)	(16)	5
<b>EPS pre-abnormals (cents per share)</b>	<b>(5)</b>	<b>(6)</b>	<b>(1)</b>	<b>(1)</b>	<b>0</b>
Reported EPS (cents per share)	(4)	(4)	(1)	(1)	0
Ordinary DPS (cents per share)	0	0	0	0	0
Special DPS (cents per share)	0	0	0	0	0
Franking (%)	0%	0%	0%	0%	0%

Source: J.P. Morgan estimates

## Consensus forecasts

We note that due to very limited broker coverage of LYC, current consensus estimates are not a true reflection of market expectations. Hence, we believe comparison between our forecasts and consensus estimates is problematic.

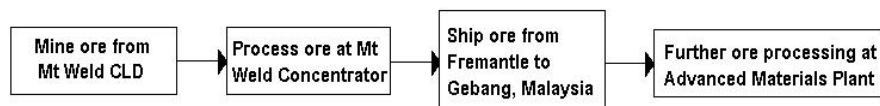
### J.P. Morgan price target

Our \$0.91 Jun11 price target is based on our NPV valuation. Upside risks to our price target include higher than expected rare earths "basket" prices, a weaker A\$ and successful developments of other prospective rare earths deposits (e.g. Malawi). Downside risks to our price target include significant project delays and cost overruns, weaker than expected rare earths "basket" prices, a stronger A\$, the implementation of an Resources Super Profits Tax in Australia and unexpected geotechnical issues at Mt Weld.

## Driver #1: Integrated rare earths project

The final development of Mt Weld and the Advanced Materials Plant in Malaysia will complete LYC's transition from a gold producer to vertically integrated rare earths mining and processing company.

Figure 6: Summary of Integrated Rare Earths Project

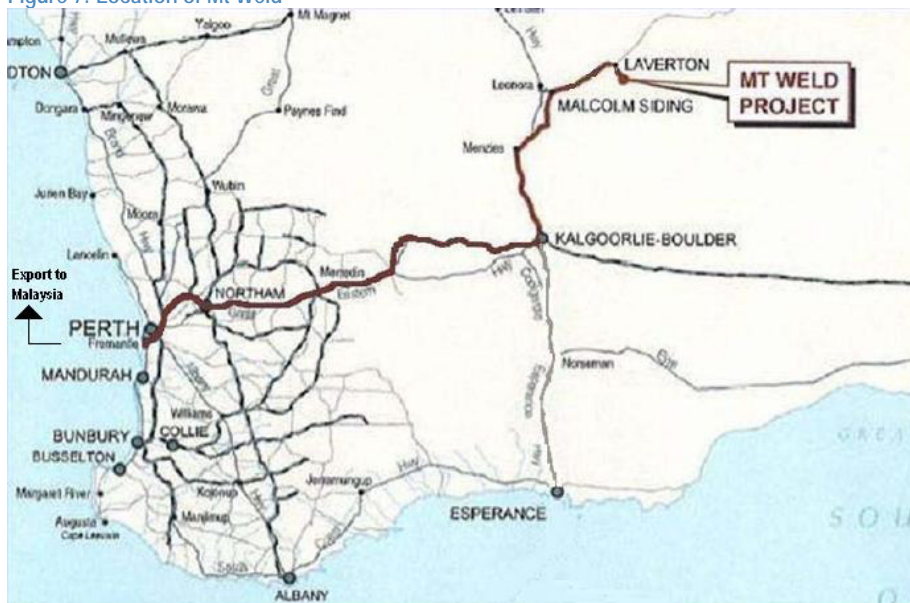


Source: Company reports

## Mt Weld rare earths deposit

The Mt Weld Deposit is located 35km south of Laverton, WA. Mt Weld contains three major deposits, the Central Lanthanide Deposit (CLD), the Crown Polymetallic Deposit and the Swan Phosphate Deposit, which contains a high concentration of rare earths as well as precious metals, such as titanium and tantalum, and phosphates.

Figure 7: Location of Mt Weld



Source: Company reports

## Reserves and resources

The bulk of the rare earth oxide (REO) located at Mt Weld is contained in CLD. According to mgmt's latest estimate, the CLD contains 12.1Mt of total REO resource (2.5% cut-off) with an average grade of 9.7% REO. Mt Weld CLD's average REO grade compares favourably to other major rare earths projects globally.

Table 7: Resource statement for Mt Weld CLD (2.5% REO grade cut-off)

	Resource (Mt)	Grade (% REO)	REO (t)
Measured	2.2	14.7%	324.0
Indicated	5.3	10.7%	563.0
Inferred	4.8	6.0%	287.0
<b>Total</b>	<b>12.2</b>	<b>9.7%</b>	<b>1,184.0</b>

Source: Company presentation

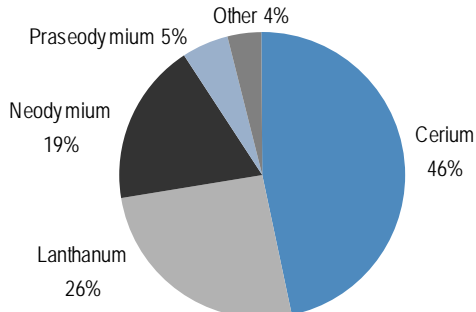
Table 8: Rare Earth Grade - Mt Weld CLD vs. competing projects

Project	Total resource (Mt)	REO Cut-off	Grade (% REO)
<b>Mt Weld CLD, Australia (LYC)</b>	<b>12.2</b>	<b>2.5%</b>	<b>9.7%</b>
Mountain Pass, US (Molycorp)	1.8	5.0%	8.9%
Nolans, Australia (Arafura)	30.3	1.0%	2.8%
Hoidas Lake, Canada (Great Western Minerals)	2.8	1.5%	2.4%
Thor Lake, Canada (Avalon Rare Earths)	190.0		1.5%
Kvanefjeld, Greenland (Greenland Minerals)	457.0		1.1%
Dubbo Zirconia, Australia (Alkane Resources)	73.2		0.8%

Source: Company reports, J.P. Morgan estimates

Of the rare earths at CLD, the vast majority of the deposit is made up of cerium oxide, lanthanum oxide and neodymium oxide. All of these rare earths have important catalytic, electrical and optical qualities while neodymium also possesses important magnetic qualities.

Figure 8: Breakdown of rare earth elements at CLD



Source: Company presentation

## Brief history of Mt Weld

Table 9: History of Mt Weld

Year	Event
1988	Ashton Mining discovers Mt Weld; commences studies into deposit
1994	Ashton Mining ceases mine development studies into Mt Weld
1997	Ashton Mining recommences mine development studies into Mt Weld
1999	LYC enters into HoA with Ashton Mining to create Mt Weld JV; gives LYC initial 35% stake in Mt Weld
2000	Mt Weld JV restructured; LYC increases stake to 50%; Anaconda Nickel buys out Ashton Mining and takes 50% stake in JV
2001	LYC takes full ownership of Mt Weld rare earths and tantalum mining rights
2005	Completes feasibility study into Mt Weld CLD
2007	Awards mining works contracts to DOW
2008	Completes first mining campaign at Mt Weld CLD
2009	LYC puts the Mt Weld concentration plant and Advanced Materials Plant on hold following financing issues
2010	LYC recommences mine development activity at Mt Weld CLD and Concentration Plant and Advanced Materials Plant

Source: Company reports, announcements and presentations

The Mt Weld deposit was first discovered by diamond miner Ashton Mining in 1988 but mine development studies were suspended in 1994 after it was decided that the mine was uneconomical. In 1997, Ashton recommenced studies into Mt Weld in response to rising rare earth prices. LYC became involved in Mt Weld in Jul99 when it signed a Heads of Agreement with Ashton to complete a bankable study for Mt Weld. These agreements also included a series of payments which initially saw LYC acquire a 35% stake in Mt Weld, with options to increase its stake to 65%.

In Jul00, LYC and Ashton restructured the JV with LYC moving to 51% ownership in Mt Weld with an option to move to full ownership. However, Anaconda Nickel acquired Ashton's 49% stake in Mt Weld and moved to a 50% stake in the overall Mt Weld deposit by providing finance for further studies while also giving Anaconda access to the tantalum deposit at the site. In Oct01, there was a wholesale change of management and Board at LYC upon which Nick Curtis became President and CEO. After that time, LYC obtained 100% ownership of the rare earths and tantalum deposits after acquiring Anaconda's share.

Once LYC obtained full ownership of Mt Weld, significant progress was made on moving from the bankable study to full mine development. In Mar05, LYC completed its feasibility study for Mt Weld CLD and began the process of obtaining financing for the project. In Apr07, LYC awarded a mining works contract to DOW which commenced on site in Jun07. In Jun08, LYC completed its first mining campaign at Mt Weld, recovering 773kt of rare earths ore.

Mine development works, including the construction of a concentration plant, were put on hold in Feb09 following a series of financing issues. However, management reinitiated works at Mt Weld following the \$450m capital raising.

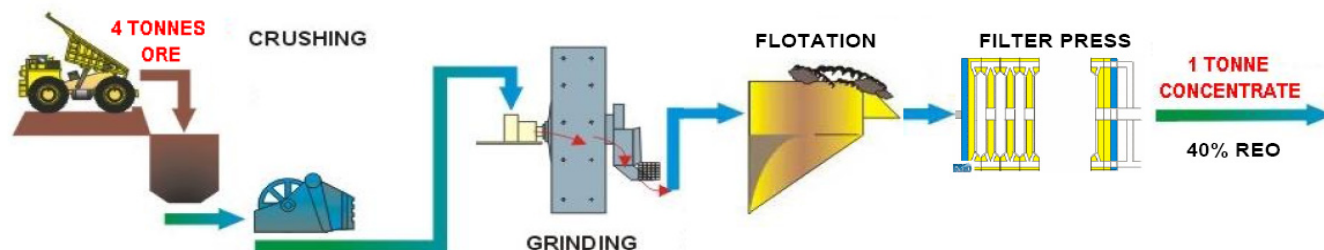
#### Potential development of other deposits

While LYC has made substantial progress towards production at CLD, the company is still examining its options for the Crown Polymetallic and Swan Phosphate deposits. A scoping study has been completed at Crown with mineralogy and process test work currently being pursued. LYC has also only recently moved to full ownership of all mineral tenements at Mt Weld after acquiring WES' CSBP unit's holding for the Swan Phosphate deposit in Aug09.

#### Mt Weld Concentration Plant

Once the ore is mined from Mt Weld, it will be trucked to a Concentration Plant 1.5km from the CLD. This plant will complete ore crushing and early stage processing, producing a 40% REO concentrate.

Figure 9: Mt Weld Concentrator Plant process



Source: Company reports

Earthworks for the concentration plant were included as part of the mining works contract awarded to DOW's Mining division in Apr07. In Sep08, mgmt awarded a fixed price construction contract for the concentration plant to Abesque Engineering & Construction. However, mgmt suspended work on the concentration plant in Feb09 after LYC lost access to debt financing facilities. At that stage, Abesque had completed foundation works for the plant.

### Completion of the concentration plant at Mt Weld

LYC recommenced work on Mt Weld following the Sep09 capital raising. During this period, LYC also engaged UGL to conduct an overview of the project to ensure that cost estimates remained accurate. Engineering design has been completed on the project, including the concentration plant, with all approvals in place and major equipment purchased and in storage in Australia. Bulk earth works and the steam generation contracts have also been completed.

LYC reinstated the main construction contract to Abesque Engineering & Construction in 1QCY10, as well as other contracts covering construction works for the power station and reverse osmosis plant. Importantly, Abesque and LYC mgmt agreed to a new lump sum fixed price for the construction contract of \$36.2m, within both the original and newly estimated budgets. Management expects to begin production from Mt Weld's concentration plant by Dec10.

### Project infrastructure in Western Australia

Excluding some minor site infrastructure, LYC will largely use common user infrastructure currently in place around Mt Weld. This includes trucking ore c.1,000km from the concentration plant in Mt Weld to the Port of Fremantle to ship to the Malaysian Advanced Materials Plant. We note that LYC originally planned to rail ore from Mt Weld to the Port of Esperance. However, mgmt altered their plans in Sep08 as the change in the overall concentration process meant that it became more economical to truck concentrate to Fremantle rather than rail to Esperance.

## Malaysian Advanced Materials Plant

LYC's Advanced Materials Plant is located in the Gebeng Industrial Area, Kuantan, Malaysia's 9th largest city and capital of the state of Pahang.

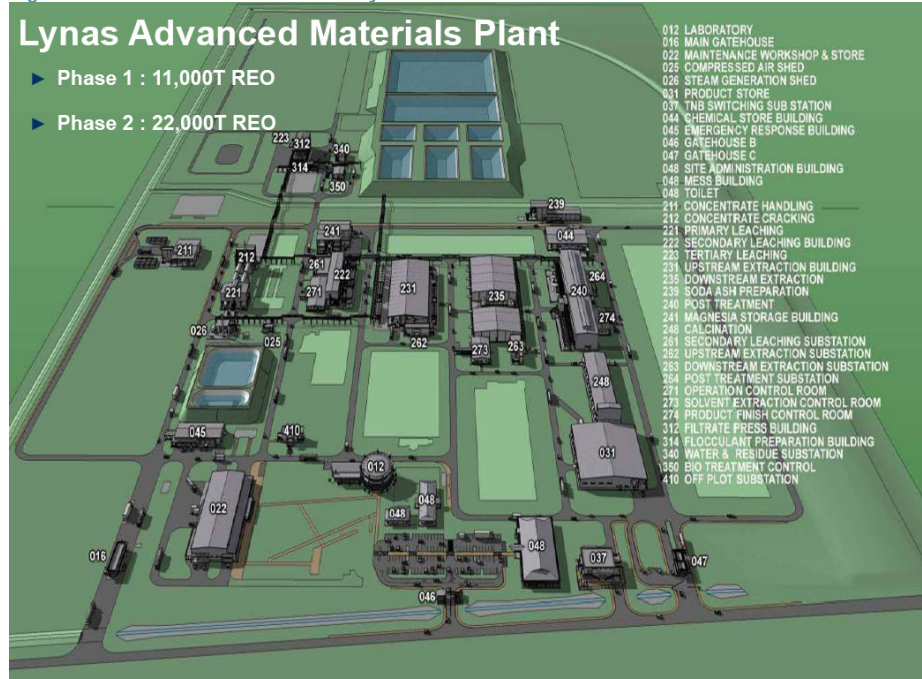
Figure 10: Location of Advanced Materials Plant



Source: Company presentation

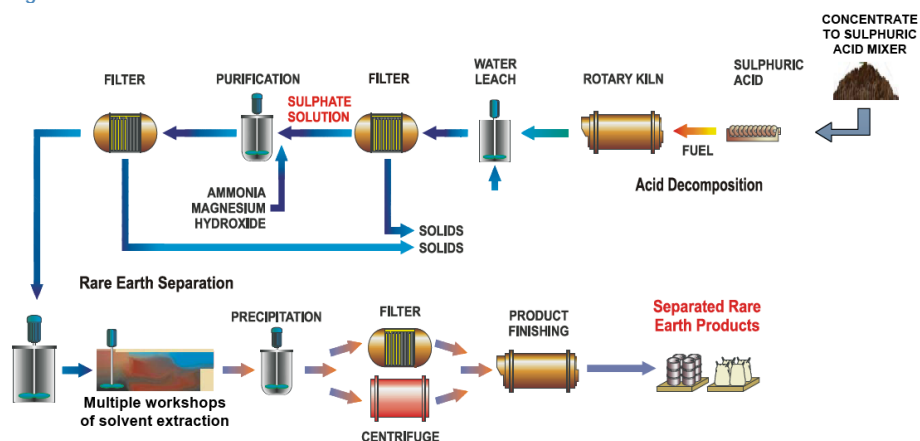
The Advanced Materials Plant will receive 40% REO concentrate from the plant in WA. The Advanced Materials Plant will then process the REO from 40% concentration to 100% concentration. Initially, mgmt is planning to achieve 11Ktpa REO (100%) output under Phase 1. However, the plant is being developed to handle a 2nd Phase development, with a total final output of 22Ktpa of REO output (100%).

Figure 11: Advanced Materials Plant layout



Source: Company presentation

Figure 12: Advanced Materials Plant schematic



Source: Company presentation

The Advanced Materials Plant has received support from both customers and the Malaysian government. LYC have signed a Technical Co-operation Agreement with France’s Rhodia Group which outlines how the two companies will work together in the commissioning and production start-up of the Advanced Materials Plant. The Advanced Materials Plant has also been designated “Pioneer Status” by the Malaysian government. This will provide LYC with a number of tax incentives and exemptions for up to 12yrs.

### Brief history of Advanced Materials Plant

When LYC first began considering its options for Mt Weld, mgmt signed an agreement with Rhodia Group to complete higher-level processing of rare earth ores in China. However, following a series of regulatory changes in China, LYC began considering the development its own Advanced Materials Plant.

In Oct06, LYC decided to build the plant in Malaysia, firstly in Kemaman. After further discussions with the Malaysian government, management shifted the plant's location to Pahang. Work was suspended on the plant in Feb09 after LYC's convertible note structure and HVB project financing fell through, but has since recommenced following the Sep09 capital raising.

Table 10: Timeline of Advanced Materials Plant

Date	Event
Feb10	Awards EPCM contract to UGL for Advanced Materials Plant
Jan10	Rhodia extends rare earths supply contract with LYC from the Advanced Materials Plant by 10 years and signs a Technical Co-operation Agreement
Sep09	\$450m unconditional placement, conditional placement and pro-rata entitlement offer; enables restart of works at Mt Weld and Advanced Materials Plant
Feb09	Suspends work on Mt Weld mine development and Advanced Materials Plant
Jan09	Signs 6th offtake customer for Advanced Materials Plant
Feb08	Receives approvals for Advanced Materials Plant from Malaysian authorities
Nov07	Malaysian government provides a series of tax incentives and exemptions to LYC and affirms “Pioneer Status” for Advanced Materials Plant
Sep07	Secures land for Advanced Materials Plant in Pahang, Malaysia
Aug07	At the request of the Malaysian government, LYC decides to relocate planned Advanced Materials Plant to Pahang, Malaysia
May07	Signs 1st offtake customer for Advanced Materials Plant
Oct06	Selects Kemaman, Malaysia as location for Advanced Materials Plant
Feb06	Signs Heads of Agreement with Rhodia covering rare earths supply and cooperation on processing in China

Source: Company reports

### Current status of the Advanced Materials Plant

After suspending project development in Feb09, LYC recommenced work in Feb10 with the signing of an EPCM contract with UGL. All approvals are in place for the



project with bulk earth works and piling substantially complete. Concreting works are to be re-initiated and other construction contracts are to be awarded. Mgmt now target a completion date and first production from Phase 1 in 3Q CY11E.

## Project infrastructure in Malaysia

As with Mt Weld, LYC will take advantage of common user access infrastructure to import ore from WA onto the site in Malaysia and export ore to customers following processing by the Advanced Materials Plant.

## Customer offtake agreements

To date, LYC has signed four customer supply agreements and two letters of intent:

- **US\$200m Rhodia supply contract** – On 20 Jan10, LYC signed an extension to a supply contract with Rhodia for the supply of cerium, europium, terbium and lanthanum over a 10yr period;
- **US\$200m supply contract** – LYC has signed a 5yr supply agreement of neodymium and praseodymium with an undisclosed customer;
- **Two additional supply contracts** – LYC has signed two further supply contracts with undisclosed customers. Both contracts involve long term supply of product from Phase 1 and 2 of the integrated rare earths project; and
- **Two letters of intent** – LYC has signed 2 letters of intent, each valued at US\$80m, with undisclosed customers which involve long term supply of product from Phase 1 and 2 of the integrated rare earths project.

These supply contracts and letters of intent discussed above cover 50% of production from Phase 1 and 50% of production from the Phase 2 planned expansion.

## Pricing mechanisms

Generally speaking, the offtake agreements discussed above are based on prevailing market prices as disclosed in *Asian Metal* and *Metal Pages*. These prices are then periodically reset every 3-6mths. A small amount of contracted volume has pricing "collars" in place which sets a floor under the price, but limits the upside from sustained higher prices. All of the agreements are for fixed volumes and the majority are under a take-or-pay arrangement. All contracts are US\$-denominated.

Of the remaining uncontracted volumes, LYC is considering several options including market price-based contracts and fixed priced (with escalators) contracts. The potential benefit from having a portion of sales locked in at fixed prices, rather than the potentially volatile market prices, is that it would offer LYC greater visibility of future earnings and this may assist the Group in securing additional financing to fund future expansion plans.

## Project financing

Prior to Feb09, mgmt had organised two debt facilities and conducted two equity raisings to fund the bulk of Phase 1:

- US\$105m senior debt facility with HypoVereinsbank (HVB);
- US\$95m convertible note facility;

- \$75m equity raising in Aug06; and
- \$95m equity raising in Apr08.

However, following a sharp decline in the A\$, bond holders issued claims against LYC that it was non-compliant with bond conditions and prevented US\$95m from leaving an escrow account. As a result, mgmt decided in Feb09 not to proceed with the convertible notes. However, the failure to achieve full project funding meant that HVB could withdraw their bank debt facility. Without sufficient funding, mgmt put the project on hold.

An alternative funding plan was developed, whereby China Non-Ferrous Metals Corporation (CNMC) would inject equity into LYC. However, in Sep09 this deal collapsed after the Foreign Investment Review Board placed restrictions on the transaction which would have limited CNMC's control over LYC. Subsequently, LYC launched a \$450m equity raising in Sep09. The proceeds from this raising have provided sufficient funding to complete Phase 1 of the integrated rare earths project.

### Capital costs

According to mgmt's most recent estimate on 20 Apr10, Phase 1 capex will be \$530.3m. An additional \$68.1m is required for working capital purposes to bring the project up to full production. To date, the Group has spent around \$200m. Therefore the future cash requirement for the project is around \$400m. This includes:

- \$36.2m construction contract awarded to Abesque for the concentration plant; and
- \$30m EPCM contract awarded to UGL for the Advanced Materials Plant.

These capex items will be incurred in FY10E-FY11E and funded from existing cash balances.

Table 11: LYC cash requirements for current projects

	Total	Spend to date	Future spending
<b>Construction &amp; other capital costs</b>			
WA Concentration Plant	61.5	16.4	45.1
Gebeng Cracker & Separator Plant	232.4	45.1	187.3
Engineering & Project Management Costs	136.4	70.7	65.7
Other Capex (incl. land at Gebeng)	74.3	58.9	15.4
Contingency (c. 9%)	25.7	0.0	25.7
<b>Working capital &amp; production ramp-up costs</b>			
Western Australia	28.1	0.0	28.1
Gebeng	22.4	0.0	22.4
Finance, Admin, Marketing, Technical & Corp Overheads	17.6	0.0	17.6
<b>Total</b>	<b>598.4</b>	<b>191.1</b>	<b>407.3</b>

Source: Company presentations (20 Apr10)

### Approvals process

LYC has received all of the approvals required for construction of Phase 1 of the integrated rare earths project. These include:

- Environmental, mining and construction approvals from Australia;
- Transport and export licence approvals from Australia;
- Environmental and construction approvals in Malaysia;

- Achieved “strategic pioneer status” with the Malaysian government.

LYC has obtained the first stage of a manufacturing licence in Malaysia (for construction). From here, LYC needs to obtain its operating licence which is expected to be approved in 2H CY11E.

### **J.P. Morgan view**

We expect further progress on Phase 1 of the integrated rare earths project to be the key share price driver over the next 1-2yrs. Phase 1 is well progressed - it is fully funded, has received all necessary approvals and is underpinned by significant offtake agreements. Growing evidence that the project will actually be delivered on time and budget should be a source of share price support and may help to close the gap between our current base case valuation and the current share price. Key data points to watch for include the execution of additional customer offtake agreements, completion of the concentration plant at Mt Weld (due by end CY10E) and completion of the Advanced Materials Plant (due in 3Q CY11E).

## Driver #2: Expansion of the integrated rare earths project

Concurrent to the development of Phase 1 of the project, LYC is also considering a Phase 2 expansion which would double production to 22Ktpa. We believe that Phase 2 offers meaningful valuation upside which is not currently captured in the share price.

### Phase 2 development

As part of the design and construction process for Phase 1 of the integrated rare earths project, mgmt have included sufficient capacity to expand production from 11Ktpa REO (100%) in Phase 1 up to 22Ktpa REO (100%) in Phase 2 by FY14E. Mgmt have stated that they expect to commence necessary capex to expand production at Mt Weld, the Concentration Plant and Advanced Materials Plant once Phase 1 production commences in CY11E.

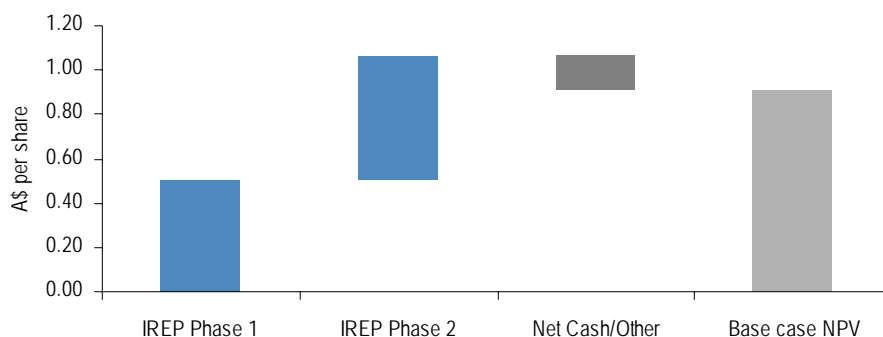
LYC currently estimates Phase 2 capex at around \$100m which would be funded through new debt facilities.

In our valuation of Phase 2 we have made the following assumptions:

- \$120m of capex commencing in 1QCY12E to fund expansions to the Concentration Plant and Advanced Materials Plant; and
- Commencement of production following Phase 2 expansion in 3QCY12E, reaching full production by 2QCY13E.

Based on our assumptions, we estimate that the NPV of Phase 2 of the integrated rare earths is \$0.56/per share. While Phase 2 adds as much REO output as Phase 1, Phase 2 requires less capex, increasing the NPV of this Phase.

Figure 13: LYC Base Case NPV



Source: J.P. Morgan estimates

### Potential for LYC to handle third-party mixed rare earths carbonate

LYC has entered into preliminary discussions with other third-party rare earths miners for LYC to handle additional raw materials supplies through its Advanced

Materials Plant in Malaysia. To date, no agreements have been finalised. In our view, it will not be until after LYC commences sales of its own finished products that it considers purchasing third-party mixed rare earths carbonate for processing at the AMP. Still, we raise the issue here as we think this longer-term opportunity highlights the strong competitive advantage LYC enjoys in being the key alternative rare earths supplier to China.

### Potential development of Malawi deposit

One potential source of REO concentrate for the Advanced Materials Plant (AMP) is the Kangankunde Carbonatite Complex (KGK) in Malawi. LYC entered into a purchase agreement with a private Malawi company in Sep07 to purchase KGK for US\$4m. KGK has JORC-compliant inferred resources of 107kt at an average REO grade of 4.24%. Once mined, LYC will look to employ a gravity separation concentration process in Malawi to produce a 60% REO concentrate. Importantly, the acquisition includes the necessary components of the concentration plant which would need to be assembled. LYC would then conduct further cracking at a plant likely to be located in Africa to produce a mixed rare earths carbonate. This carbonate can then be shipped to the AMP to be converted into an expected 5Ktpa of 100% REO separated products. LYC have yet to complete the transaction, with the purchase agreement extended until the end of CY10E. Mgmt remain in discussions with the Malawi government to complete the final transfer of the mining licence. Once the transaction is completed, we expect production to commence from KGK within 3yrs after additional grade control drilling, a mine plan and assembly of the necessary concentrator and cracking plants have been completed.

### J.P. Morgan view

We value Phase 2 of the integrated rare earths project at \$0.56/share. We choose to include Phase 2 in our base case valuation because we have a reasonably high confidence level that the expansion will be ultimately sanctioned by the Group given the positive medium term rare earths market dynamics. Having said that, we note that the Phase 2 expansion is contingent on the successful completion of Phase 1 and we recognise that Phase 1 is still at risk from unexpected project delays and/or unforeseen cost overruns. Although the Group is yet to secure funding for Phase 2, we note that the proposed expansion is underpinned by offtake agreements with four separate customers.

## Driver #3: Expected strong demand growth

Rare earths are likely to play an important role in reducing global emissions through its use in a variety of environmentally-friendly technologies. Rare earths are also becoming increasingly important in the development of devices for the IT and consumer electronics industries. These present significant market growth opportunities for LYC.

### What are rare earths? What makes them attractive?

Rare earths are a group of at least 15 elements within the Lanthanide series. These elements are relatively abundant in the earth's soil but are found in higher concentrations in certain locations. China control 95% of the global rare earths market, with 45% of the global supply coming from China's Baiyun Obo mine in Inner Mongolia.

Figure 14: Rare earths on the periodic table

The image shows a standard periodic table of elements. The rare earth elements, which include the Lanthanide and Actinide series, are highlighted in blue. The Lanthanide series starts with Lanthanum (La) and ends with Lutetium (Lu). The Actinide series starts with Actinium (Ac) and ends with Lawrencium (Lr). The table also shows the atomic number and symbol for each element.

Source: Company website

Across the range of rare earths are several key features which make them attractive:

- Neodymium (Nd) and samarium (Sm) are highly magnetic;
- Europium (Eu) and yttrium (Y) intensify the display of colours in phosphors;
- Dysprosium (Dy) improves the efficiency of magnets by allowing them to operate at higher temperatures; and
- Cerium (Ce) is an effective polishing and cleansing agent and also has an important role in automotive catalytic converters.

### Application 1: Environmentally-friendly technologies

Increased concern about the impact of greenhouse gas emissions has encouraged action from a range of industries to improve the impact of their products on the environment. In particular, there has been a push to reduce energy usage, which is a major contributor to the production of greenhouse gases, as well as clean up remaining emissions, with concerns about the impact of various pollutants on human health. This has seen the development of four important technologies:

- **Compact fluorescent lighting** – Conventional incandescent light bulbs involves the heating of a metal element while compact fluorescent lighting involves sparking a gas to create light. Importantly, compact fluorescent lighting requires a quarter of the electricity needed by conventional light bulbs to produce the same amount of light;
- **Petrol-electric hybrid cars** – In order to reduce the amount of petrol consumed by cars, automotive manufacturers have developed hybrid vehicles which combine a petrol motor with an electric motor, which is powered by a battery, including nickel-metal hydride units (NiMH). Older electric hybrid cars used to plug into the power grid to charge the battery but newer models charge the battery using magnets which capture the force generated by the vehicle during acceleration and braking;
- **Catalytic converters** – Emissions from cars contain a number of toxic pollutants. In order to clean these emissions, catalytic converters are attached to the exhaust systems of cars. Catalytic converters contain a variety of elements that, when heated, attract and remove these toxins from the emissions before they exit the exhaust system; and
- **Fluid cracking catalysts (FCC)** – FCCs are used in the oil refining process to separate the heavy molecules from the lighter molecules to manufacture products such as automotive and aviation fuels.

Rare earths play an important role in each of these technologies. For example, rare earths are contained in the NiMH battery units and the magnets in hybrid. Rare earths are also used in FCCs to help stabilise the process. NiMH batteries are also being increasingly used for other smaller scale consumer products, such as cameras.

It is also worth noting that rare earths also play important roles in improving the efficiency of **motors and generators** through increasing the power of the magnets and, therefore, allowing these magnets to be reduced in size. This has seen the production of other environmentally-friendly technologies, such as wind turbines, as well as other products using motors and generators, such as air conditioners, using rare earths.

## Application 2: New digital devices

Rare earths are also playing an important role in the development of new devices for the IT and consumer electronics industries.

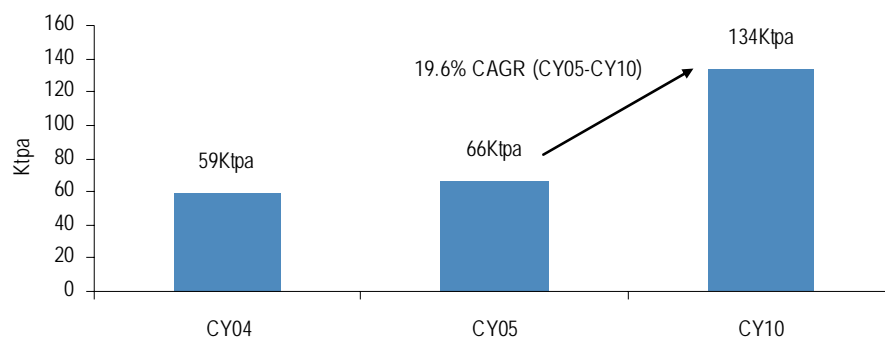
- Rare earths enhance the power of magnets. This allows manufacturers to develop smaller magnets for increasingly smaller devices, including **iPods** and other **portable music players** and **headphones**. It also allows computer **hard disk drives** to use thinner materials to write information onto and stabilise the spinning of the drive, increasing the storage capacity and reliability of hard disk drives; and
- TV and monitor manufacturers are increasing their demand for rare earths as **LCD, plasma and traditional cathode-ray tube displays** all require rare earths phosphors to produce colour. Rare earths are also important for polishing glass displays to ensure that pictures on any display type is clear by removing impurities from the glass. It also helps improve the quality of glass for other uses, including in **fibre optics, optical lenses and lasers**.

Finally, it is also worth noting that rare earths are playing an increasingly important role in the **defense sector**. The use of rare earths in products such as magnets, lasers and glass has been applied to a range of defense technologies, including precision munitions (e.g. "smart" bombs and missiles) and radar and sonar systems. Some rare earths also allow for the manufacture of lighter metal alloys, including steel alloys, without losing any strength.

### Strong growth in rare earths expected to continue

Each of these applications has triggered an increase in demand for rare earths recently, which can be seen in the chart below.

Figure 15: Growth in demand for rare earths



Source: Company presentations, IMCOA, Roskill

Industry forecasters, Industrial Mineral Company of Australia and Roskill, expect strong demand growth through CY14E (discussed in more detail later), especially driven by growth in use of rare earths in magnets and battery alloys.

Table 12: CY14E demand forecasts for rare earths by application

Application	CAGR (CY10E-CY14E)	CY14E demand (kt)
Magnets	12%	50
Battery alloy	15%	28
Metallurgy (ex batteries)	2%	13
Auto catalysts	8%	12
Fluid cracking catalysts (FCC)	4%	25
Polishing power	8%	26
Glass additives	-1%	10
Phosphors	8%	11
Ceramics	4%	2
Others	2%	4
<b>Total</b>	<b>8%</b>	<b>182</b>

Source: Company presentation, IMCOA Roskill

### Rare earths are un-substitutable in many applications

Given recent supply issues, many users of rare earths have been looking for alternatives. However, there are some uses for rare earths which can't be replicated with other minerals, including:

- Rare earths-based magnets are smaller and more powerful than ferrite magnets. Without rare earths, the electronics industry would be unable to produce



increasing smaller and more efficient products (e.g. iPods, mobile phones). Further, the use of rare earths-based magnets makes wind power and hybrid vehicles viable;

- Cerium is critical in the development of catalytic converters and other pollution-control systems, as it helps to reduce sulphur oxide emissions and offers micro-filtration; and
- Europium is critical in TV and monitors displays, producing the best red phosphor colour, has been employed in medicine to trace particular elements in tissue research and is a key element in fluorescent lighting.

### J.P. Morgan view

We expect good demand growth for rare earths over the medium term, largely driven by increasing demand for magnets, battery alloys, polishing powders and automotive catalytic converters. It is perhaps a poorly understood fact that these applications play a pivotal role in modern life. Rare earths are critical in the production of neo magnets and polishing powders in the consumer electronics industry. They are also vital in developing hybrid vehicle technology, weight reduction in the automotive industry and development of better automotive catalytic converters and clean diesel technology. We expect demand for these devices and technologies to continue to increase, which in turn, supports the outlook for rare earths demand.

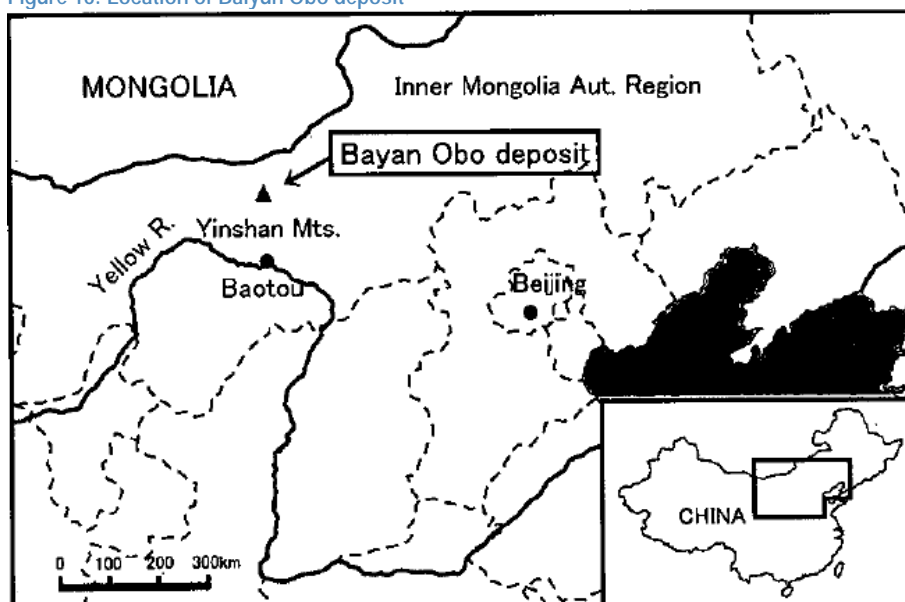
## Driver #4: Tightening Chinese supply

In recent years, the Chinese government has implemented a number of measures aimed at reducing the number of smaller, unsafe rare earths mining operations in China. The government has also imposed a range of export restrictions on rare earths with the aim of ensuring domestic supply is sufficient to meet expected domestic demand.

### Major deposits in China

China's rare earths industry began in the 1950's and has now become the world's largest supplier. China controls 95% of the global rare earths market, with 70% of the global supply coming from China's Baiyun Obo iron ore mine in Inner Mongolia, where rare earths are a secondary product. The remaining rare earths supply in China comes from a series of smaller, usually unlicensed mines located in southern China.

Figure 16: Location of Baiyun Obo deposit



Source: Kanazawa, Y. et. al., "Review on models for ore genesis of the Baiyun Obo deposit, the world largest REE deposit", *Resource Geology*, Vol. 49 No 3 (1999), pp. 203-216

China became the world's largest supplier of rare earths when it flooded the market with material in the 1990's, often costing less than their international competitors due to a combination of lax environmental and labour laws. This forced the closure of most of the world's remaining rare earths mines. However, growth in demand for technologies using rare earths has increasingly put pressure on the limited supply, forcing prices higher.

### Government restricting supply

Growing domestic and global demand for rare earths has forced the Chinese authorities to look at how it manages its rare earths resources. Further, media reports (e.g. *The Independent*) cite concerns that China's growth in demand for rare earths means that it may only be able to supply enough rare earths for its own consumption

by 2012. As a result, a series of policies have been implemented to reduce rare earth exports to protect China's domestic requirements:

- **Tariffs** – In late 2006, the Chinese government introduced a 10% export tariff on rare earth exports. However, on 1 Jan08, China increased tariffs to between 15% (light rare earths) and 25% (heavy rare earths) on the export rare earth minerals;
- **Tax rebates** – In 2007, China removed the rebate for value added taxes on rare earth exports. However, the government retained the rebate for products produced for export in China which contained rare earths;
- **Curtailed production** – In 2009, the Chinese government imposed an 82.3kt production quota on the rare earths industry, of which 72.3kt came from Baiyun Obo and other mines in the Baotou and Sichuan regions. Further, the government will not issue new prospecting or mining licences for rare earths until Jul11;
- **Quotas** – Since 2004, China has imposed export quotas on rare earths. In 2009, the Chinese government imposed a 50.1kt export quota. Further, of the 50.1kt export quota, only 16.8kt could be exported by foreign JVs; and

Chinese authorities are also considering even more stringent controls. In Oct09, China's Ministry of Industry and Information Technology proposed the ban of five rare earth elements and increased control over the export of other rare earth minerals. These policies are also being viewed as a means for bringing additional manufacturing into China by constraining the export of rare earths.

### Environmental concerns rising

The processing and mining of rare earths have the potential to create several environmental issues. The processing of rare earths requires the use of a range of acids, including sulphuric and hydrochloric, which can be dangerous to human health. Some rare earth deposits are also shared with uranium, which creates problems associated with radioactive materials. Further, most of these rare earths deposits are mined using open cut methods, which can lead to further damage from impact on the physical environment.

There is growing evidence that environmental problems are emerging in the Chinese rare earths industry. Lax environmental standards on rare earths mining and increased production from unlicensed mines in southern China is leading to increased environmental damage, including the destruction of farmland and increased pollution of waterways, and higher human exposure to pollutants and toxic materials. The Chinese government is taking steps at the Baiyun Obo mine but environmental damage is still being caused at other sites.

### J.P. Morgan view

LYC is the key future alternative supplier to Chinese supply. Chinese authorities have recently imposed various controls on the export of rare earths in a bid to shore up domestic supply against the backdrop of expected strong growth in the development of domestic-based higher value-add technology. We expect this dynamic to play into LYC's favour as continued Chinese supply restrictions keep rare earths prices elevated over the medium term.

## Risk #1: Project delays and cost inflation

Our current base case valuation is based on a construction schedule and production ramp up consistent with mgmt's expectations. Hence, we note our valuation is at risk from unexpected project delays and unforeseen cost inflation.

Key risk factors that may lead to a delay in the construction schedule at LYC's concentration plant at Mt Weld and the Advanced Materials Plant in Malaysia include:

- Poor quality construction work that requires necessary remediation work. This issue could arise from the use of low quality labour resources and/or construction materials;
- The insolvency of a key contractor(s) creating a need to source a replacement contractor. Inevitably, this takes time and would lead to delays; and
- Significant unexpected variations to the project's design.

### Valuation impact from project delays

To give investors a sense of the valuation sensitivity to changes in the construction schedule we have run a scenario which assumes the following:

- A one year delay in practical completion of the Advanced Materials Plant for IREP Phase 1;
- A one year delay in completing works on IREP Phase 2; and
- A 10% cost overrun from current capex estimates to reflect the increased costs associated with this delay for Phase 1.

Under this scenario, our NPV valuation for LYC would fall from \$0.91 per share to \$0.71 per share.

Table 13: LYC NPV - impact of project delays and cost overruns on IREP

	A\$ per share
LYC base case NPV	\$0.91
Impact of 1yr delay on IREP Phase 1 & 2	-\$0.14
Impact of 10% cost overrun on IREP Phase 1	-\$0.06
LYC NPV after project delays & cost overruns	\$0.71
<i>% difference from base case NPV</i>	<i>-21.9%</i>

Source: J.P. Morgan estimates

### J.P. Morgan view

We cannot rule out the possibility of delays in the construction schedule for the integrated rare earths project. Delays could be caused by poor quality construction work that requires remediation, the insolvency of key contractors and unexpected variations in the project's design. In addition, it's possible the project is impacted by unforeseen cost inflation. This could also arise from material delays in the construction schedule. Both of these issues have the potential to reduce our base case valuation. For example, we note that a 1-year delay in commencement of full production as well as a 10% cost overrun would reduce our valuation by around 22% to \$0.71.

## Risk #2: Resource Super Profits Tax

The possible introduction of a Resource Super Profits Tax (RSPT) by the Federal Government could impact the financial returns of mining projects in Australia, including LYC's Mt Weld project.

### Rationale for RSPT

In response to the Henry Tax Review on 2 May 10, the Federal Government has proposed the introduction of a Resource Super Profits Tax (RSPT). The Federal Government's rationale for introducing the RSPT is that it would ensure the Australian community "receives a more consistent share of the returns from (Australia's) non-renewable resources". The proceeds of the RSPT would be used to fund investment in infrastructure, the establishment of a State Resources Infrastructure Fund, the lowering of the corporate tax rate and other tax reforms.

### Structure of RSPT

Under the proposed RSPT, the Federal Government will tax the realised value of resource projects at 40% (revenues less deductible expenditure). Under the RSPT, deductible expenditure includes:

- **The costs of extraction;**
- **Depreciation;**
- **RSPT allowances** – Under the RSPT, a deemed interest cost would be calculated on the opening asset base of a resource project in each period. The interest rate would be based on the 10yr government bond rate; and
- **Unutilised carry forward losses** – Under the RSPT, resource project owners would be able to carry forward the real value of losses incurred on a project as a deduction against future RSPT payments.

Further, the Federal Government has proposed a series of offsets as part of the RSPT:

- **Accelerated depreciation** – For existing projects, the Federal Government would allow resource project owners to utilise an accelerated depreciation scheme to increase tax credits during the early phases of the RSPT. Beginning with 100% of the project's accounting book value, the resource project owner would be able to write off 36% of the book value in year 1 of the RSPT, 24% in year two, 15% in the years 3 and 4, and 10% in year 5;
- **State royalty rebates** – The Federal Government would refund state royalties to resource project owners once the RSPT commences. This is expected to avoid double taxation and means that resource royalty payments become pro-cyclical;
- **Company income tax deductibility** – The Federal Government proposes making RSPT payments tax deductible for company income tax purposes. This is consistent with the current arrangements involving state royalties and other resource rents; and
- **Immediate deductibility of exploration expenditure** – Exploration expenditure would be immediately deductible under the RSPT. Further, the Federal Government is proposing the introduction of a rebate that would allow resource

project owners to receive an immediate refundable tax offset at the company tax rate for exploration expenditure.

The overall impact of the proposed RSPT is also mitigated by the proposed reduction in the Australian corporate tax rate (from 30% currently to 28% from 1 Jul14).

### Where is the taxing point for LYC?

Under the structure of the original proposed RSPT, we understand that LYC will be taxed on profits generated at the transfer pricing level from its concentration plant at Mt Weld. This suggests that the RSPT might be less onerous on LYC than other minerals producers in Australia. We estimate that the transfer price used in any RSPT calculation would be equivalent to around 30% of the finished product price (REO 100%).

### Sensitivity analysis

The following table outlines the sensitivity to our LYC NPV assuming the RSPT is passed into law in its current form (i.e. hurdle rate equal to the long term government bond rate of around 6%).

Table 14: LYC NPV - impact of RSPT (current form)

	A\$ per share
LYC base case NPV	\$0.91
Less: NPV impact of RSPT	-\$0.09
LYC NPV post RSPT	\$0.82
<i>% difference from base case NPV</i>	<i>-10.1%</i>

Source: J.P. Morgan estimates

As an additional scenario we have run the sensitivity to our original NPV range at a hurdle rate similar to the current Petroleum Resource Rent Tax calculation (i.e. around 12%). Interestingly, given the small amount of capital deployed in Australia, a change in the hurdle rate has only a small impact on our post-RSPT NPV estimate of LYC.

Table 15: LYC NPV - impact of RSPT (increased hurdle rate to 12%)

	A\$ per share
LYC base case NPV	\$0.91
Less: NPV impact of RSPT	-\$0.09
LYC NPV post RSPT	\$0.82
<i>% difference from base case NPV</i>	<i>-9.7%</i>

Source: J.P. Morgan estimates

### J.P. Morgan view

The proposed RSPT is a risk to all Australian-operating resources companies, not just LYC. However, we note that the potential impact on LYC is likely to be mitigated because the taxing point at which the RSPT is levied is at LYC's "transfer" price of the rare earths concentrate from Mt Weld to the Advanced Materials Plant in Malaysia. We estimate the transfer price is roughly 30% of the finished product price. Still, we estimate the implementation of the RSPT in its current form has the potential to reduce our base case valuation by around 10%.

## Risk #3: Supply response to high prices

Over time, we'd expect a sustained period of high rare earths prices to illicit a supply response and bring the market closer to equilibrium. We believe a supply response will come from either the re-opening of mothballed mines and/or the development of new mines. We note that a faster than expected increase in supply may impact global rare earths prices and lower our valuation of LYC.

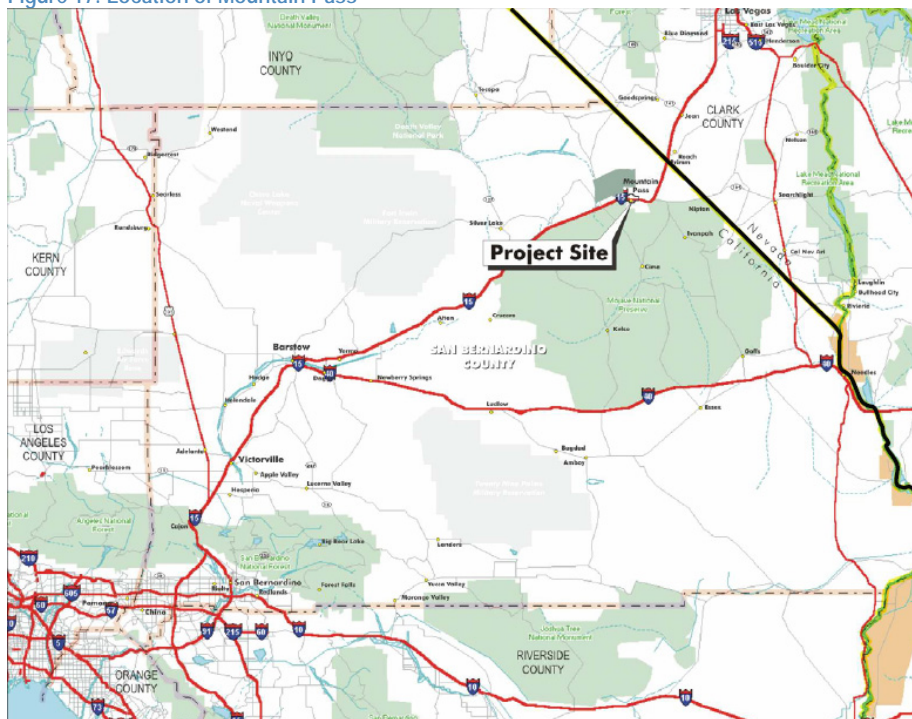
### Reopening old mines

Chinese export tariffs, quotas and other policies to limit the supply of rare earths into the global market are driving prices higher. This is encouraging owners of a number of old rare earths mines to consider reopening, including in India and South Africa. However, the largest potential mine reopening is likely to occur in California.

#### Mountain Pass, California

Mountain Pass is located northeast of Los Angeles, near the California-Nevada border. Production at Mountain Pass began in 1952 and at one point produced 40% of the global supply of rare earths. However, production was suspended in CY02 after increased Chinese production pushed rare earth prices below levels that were economic for Mountain Pass. Following a series of transactions involving Mountain Pass' corporate owners, Chevron sold Molycorp Minerals, the holder of the Mountain Pass deposit, to a group of financial and private equity investors. Molycorp has restarted production at Mountain Pass with processing of stockpiled concentrate commencing in CY09 and mining of new ore expected to commence in the next 2yrs.

Figure 17: Location of Mountain Pass



Source: Molycorp presentation

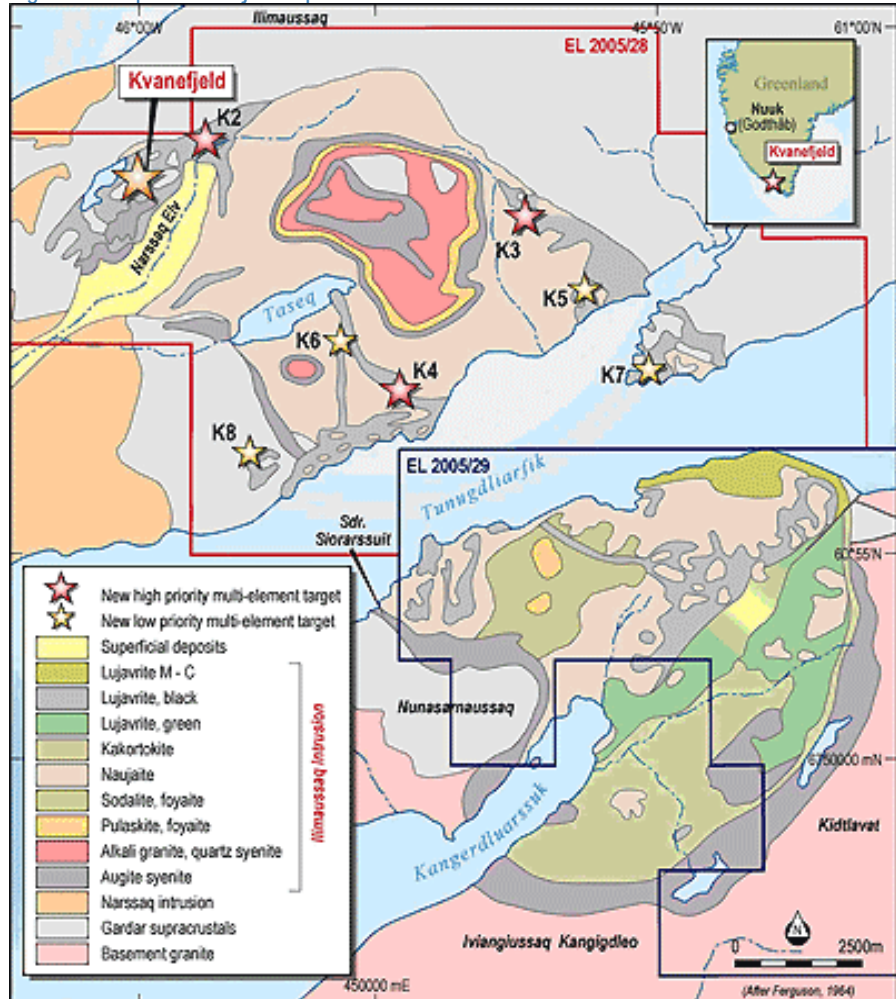
## Development of new mines

The recent period of high rare earths prices have also encouraged the preliminary development of potential new mines. This has resulted in the discovery of a number of potentially sizable new rare earth deposits. Below we discuss 5 of the larger potential new mines.

### Kvanefjeld, Greenland

The Kvanefjeld Ilimaussaq Intrusive Complex is located on the southwest tip of Greenland. The complex is 61% owned by ASX-listed Greenland Minerals and Energy Limited (GGG) and 39% owned by UK-based Westrip Holding Limited. Upon acquiring its stake in the project in mid 2007, GGG commenced a series of studies, including JORC-compliant resource estimations. According to the most recent reserves estimate, Kvanefjeld contains a number of elements, including 283Mlbs of uranium oxide and 4.91Mt of rare earth oxides, making this deposit at least 4 times larger than Mt Weld CLD. GGG presented interim pre-feasibility results into the project in Feb10. Mgmt estimate total capital expenditure for the project of US\$2.31bn, construction to commence in CY13E and first production in CY15E.

Figure 18: Map of Kvanefjeld deposit



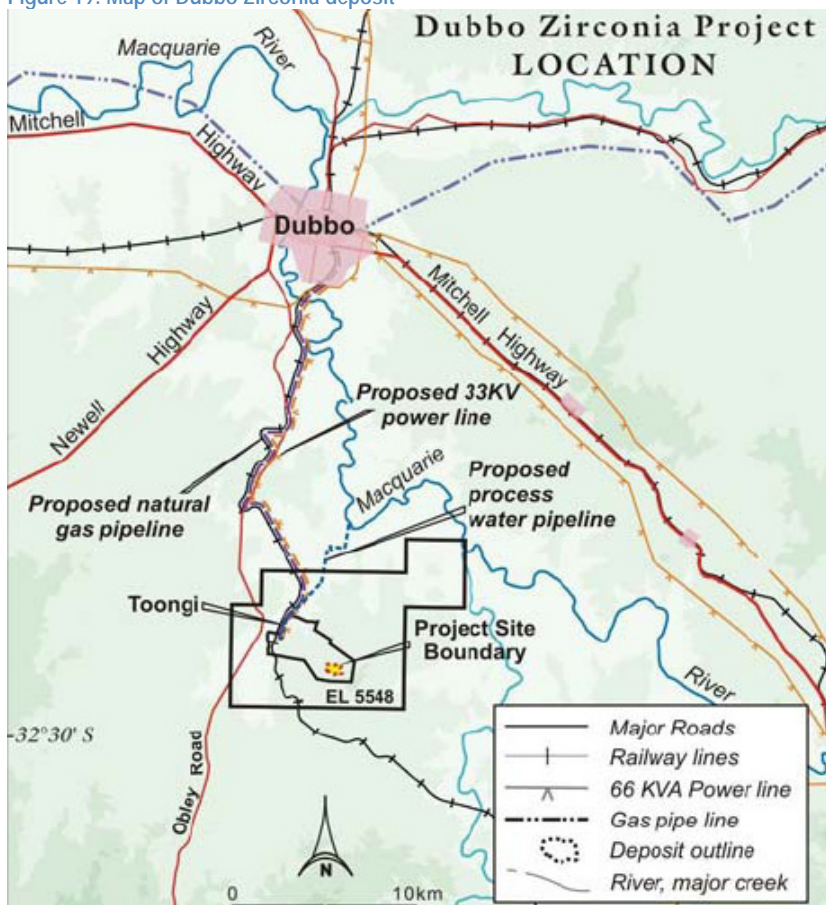
Source: Greenland Minerals and Energy Ltd website



### Dubbo Zirconia, NSW

The Dubbo Zirconia Project (DZP) is located in NSW's Central West region. DZP contains zirconium, tantalum and rare earth minerals. Project owner, ASX-listed Alkane Resources (ALK), has produced rare earth products from a demonstration plant in Nov09. ALK expect to receive development approval in late CY10E and begin production in early CY12E. Management are considering two different production scenarios for DZP, which could produce between 1.3-3.2Ktpa of rare earth ores, with defined resources sufficient to support open cut mining for over 200yrs.

Figure 19: Map of Dubbo Zirconia deposit

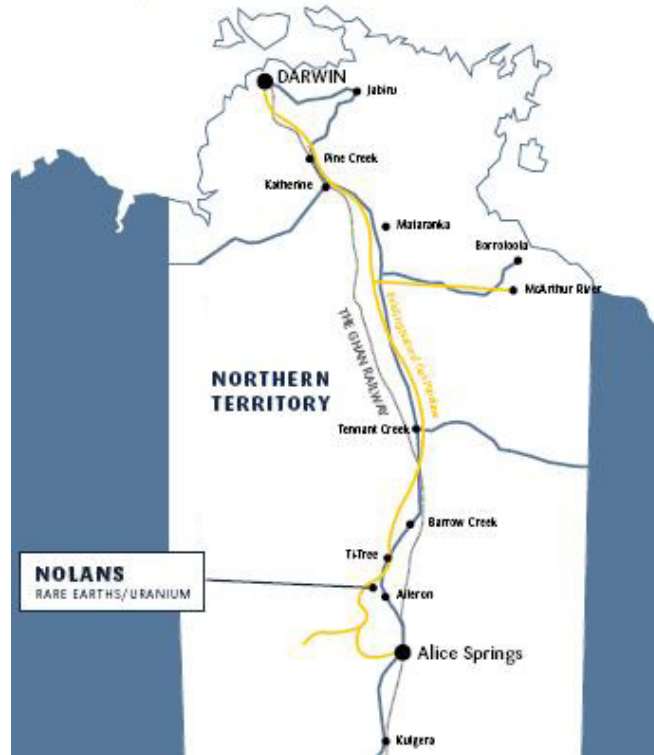


Source: Alkane Resources reports

### Nolans, NT

The Nolans phosphate deposit, north of Alice Springs, NT, was first discovered by the Japanese Nuclear Power Corporation in 1995. ASX-listed Arafura Resources (ARU) applied for tenements over Nolans in 1996 and has now identified a 30.3mt resource including uranium, phosphate and 848Kt of rare earths. ARU have submitted its approval documents and aim to have a bankable Feasibility Study completed in CY10E. ARU expect to begin open-cut production at Nolans in CY13E, targeting 850Ktpa ROM over an initial 20yr period, with plans to build a rare earths processing plant. In order to support development of this deposit, Jianguo Eastern China Non-Ferrous Metals Investment Holding Company Limited (ECE) has invested \$23m into ARU through two share placements. As a result, ECE currently owns 24.86% of ARU shares.

Figure 20: Map of Nolans deposit



Source: Arafura Resources reports

### Hoidas Lake, Canada

The Hoidas Lake deposit, located north of Lake Athabasca in Saskatchewan, Canada, was originally discovered in the 1950s. TSX-listed Great Western Minerals Group (GWMG) began drilling in 2002 and, in Nov09, estimated a total resource of 2.8Mt of rare earths (1.5% cutoff). GWMG are currently engaged in a series of metallurgical, environmental and transportation studies.

Figure 21: Location of Hoidas Lake

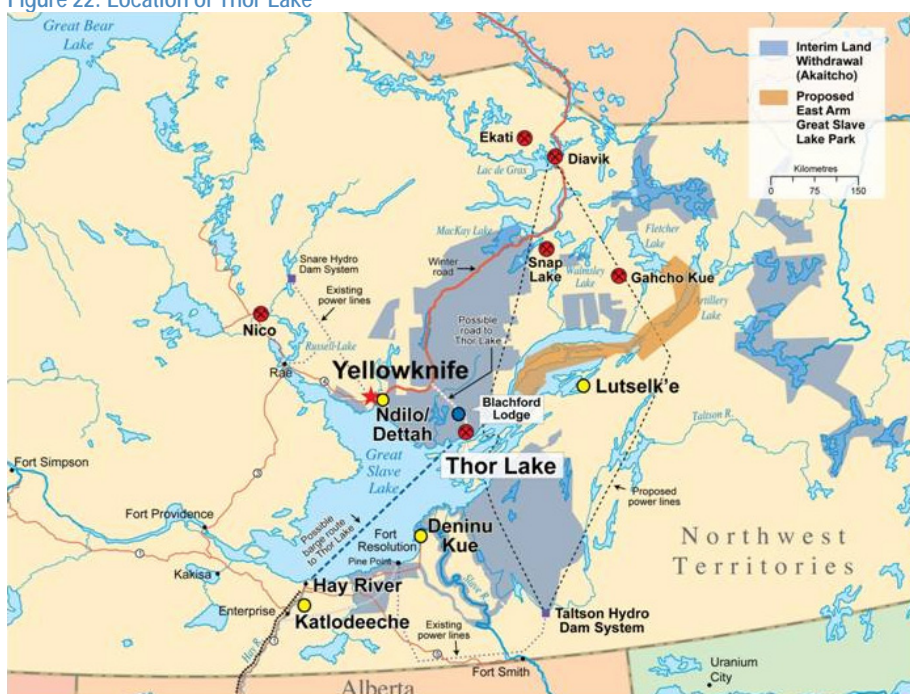


Source: Great Western Minerals Group website

### Thor Lake, Canada

The Nechalacho deposit at Thor Lake, located in the Northwest Territories, Canada, was first discovered by Highwood Resources Ltd in 1976. Highwood completed exploration and development work at Thor Lake until 2004. After a series of mining companies walked away from the deposit, the 5 mining leases and 3 mineral claims covering this deposit were acquired by TSX-listed Avalon Rare Earths Inc. in Apr05. According to the most recent drilling data, Thor Lake has 4.4Mt of rare earth indicated resource and a further 64.2Mt of rare earth inferred resource (1.6% cutoff). Avalon recently completed a pre-feasibility study for Thor Lake which outlined a panned C\$980m investment with targeted first production in CY15E.

Figure 22: Location of Thor Lake



Source: Avalon Resources website

### Capital constraints likely to be overcome...

Outside of Mountain Pass and Mt Weld, most of the remaining rare earth deposits are held by smaller miners or exploration companies. While the attractive demand-supply dynamics in the rare earths market is likely to attract investment, the large number of new projects will see increased competition for financing. Capital will also be required to expand rare earths processing capacity outside of China, where most installed capacity is currently located.

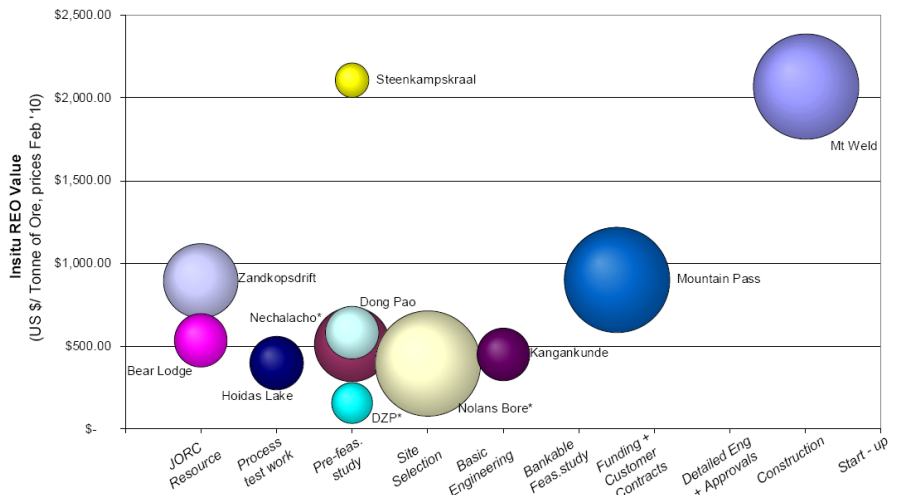
Despite the potential competition for capital, a number of end users are looking to secure additional rare earths supplies in response to tighter Chinese export controls. This is especially true amongst Japanese buyers who have sought out rare earth supplies in countries including Vietnam (Toyota Tsusho/Sojitz JV) and Kazakhstan (Sumitomo). This indicates that there could be enough capital to fund new rare earth projects.

**...but new projects could take some time to come to market**

As shown in the chart below, there are a large number of rare earths projects under consideration. But while there are a large number of potential developments, Mt Weld is the most advanced and one of the largest (based on the value of it-situ resource). LYC also has the advantage of a fully integrated position in rare earths given its processing capacity in Malaysia. These factors should provide LYC with a strong first mover advantage over other competitors in supplying the market. By extension, we note that should LYC choose to purchase mixed rare earths carbonate from other third party producers (as discussed earlier) it potentially stands to benefit from increased rare earths supply.

Figure 23 below outlines the proposed rare earths projects globally. The chart highlights that LYC's Mt Weld development is one of the largest and by far the most advanced.

Figure 23: Global rare earth development projects



Source: Company presentation

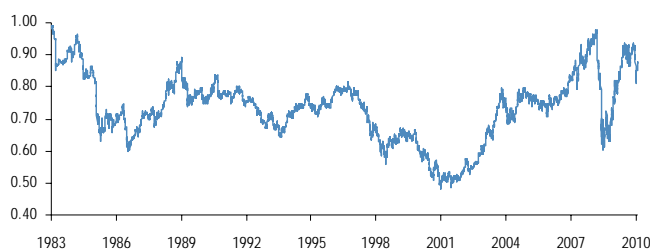
**J.P. Morgan view**

We believe a period of sustained high rare earths prices will inevitably illicit a supply response. Over time, we expect this may put downward pressure on rare earths prices. However, we note that many planned new developments are still in their infancy suggesting the market will remain in structural shortage over the short to medium term. Still, were we to see a faster than expected supply response there may be downside risk to our price forecasts, which in turn would decrease our base case valuation. We estimate that a 20% decline in rare earths prices from our base case forecasts over the forecast period could potentially reduce our valuation by around 50%.

## Risk #4: Foreign exchange risk

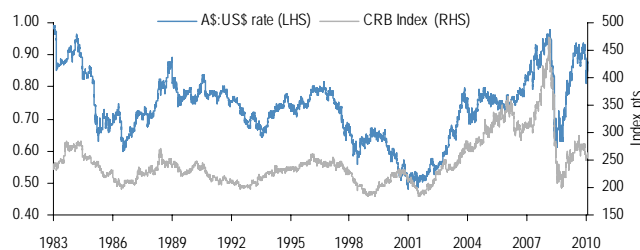
LYC will be exposed to fluctuations in the A\$/US\$ exchange rate. LYC's revenues will predominantly be US\$-denominated, but around 25% of the cost base will be A\$-denominated (i.e. mining operations at Mt Weld). We note that LYC does not intend to hedge any of its US\$-denominated revenues. Thus, appreciation in the A\$ vs. the US\$ could negatively impact LYC's reported profitability. We note that the value of the A\$ is typically highly correlated with commodity prices and has been volatile historically (see Figure 24).

Figure 24: A\$/US\$ exchange rate 1983-2010



Source: Bloomberg

Figure 25: A\$/US\$ exchange rate vs. CRB Index



Source: Bloomberg, J.P. Morgan estimates

Table 16 below outlines J.P. Morgan's economists A\$ forecasts over the medium term. Our economists expect rising Australian interest rates and strong terms of trade to keep the A\$ at elevated levels over the foreseeable future before trailing off to a long term rate of 0.75.

Table 16: J.P. Morgan's A\$/US\$ exchange rate forecasts

	FY10E	FY11E	FY12E	FY13E	FY14E	Long run
A\$/US\$ exchange rate	0.88	0.89	0.90	0.90	0.89	0.75

Source: J.P. Morgan estimates

### Scenario showing unhedged currency exposure

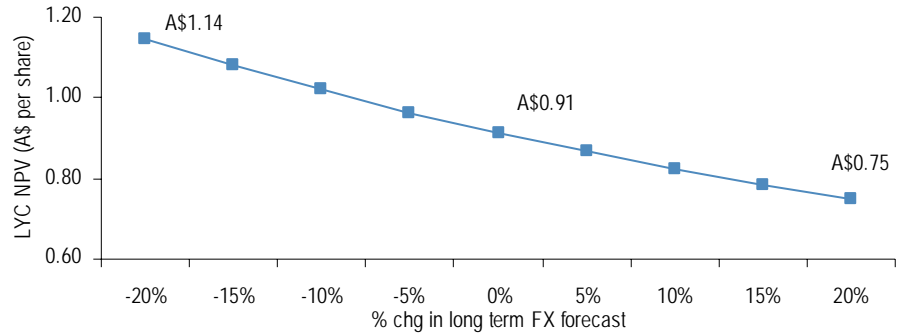
Below we outline the impact to our original NPV range from a +/-20% variation in the A\$/US\$ from our base case forecasts. We estimate a 20% appreciation of the A\$ over and above our base case forecasts would lead to an 18.3% reduction from our base case valuation.

Table 17: LYC NPV scenario - A\$/US\$ exchange rate

LYC base case NPV	\$0.91
A\$/US\$ exchange rate 20% above J.P. Morgan forecasts	\$0.75
% difference from base case NPV	-18.3%
A\$/US\$ exchange rate 20% below J.P. Morgan forecasts	\$1.14
% difference from base case NPV	25.2%

Source: J.P. Morgan estimates

Figure 26: LYC base case NPV - long run A\$/US\$ scenario



Source: J.P. Morgan estimates

### J.P. Morgan view

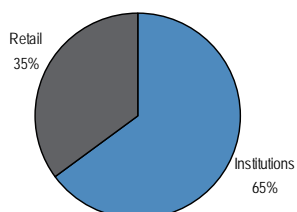
The Group is exposed to A\$/US\$ rate fluctuations given its products will be sold in US\$ but around 25% of the cost base will be in A\$. LYC does not intend to undertake a hedging program for its foreign currency revenues. Therefore, LYC will be negatively impacted by sustained A\$/US\$ appreciation. We estimate that a 20% appreciation in the A\$/US\$ rate over our base case long-term forecast of 0.75 could potentially reduce our valuation by around 18%.

## Corporate appeal

### Relatively open register...

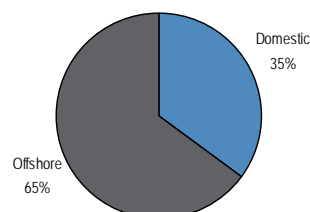
LYC's shareholder register is relatively open, with only one shareholder owning more than 5% of the company. We estimate that the top 20 shareholders own c.69% of LYC, which includes Executive Chairman Nicholas Curtis (1.39%).

Figure 27: Shareholder register by investor type



Source: J.P. Morgan estimates.

Figure 28: Shareholder register by geography



Source: J.P. Morgan estimates.

### ...but regulatory decision makes a foreign takeover harder

Demand-supply dynamics are making the market for rare earths increasingly attractive. This has seen both an increase in the number of companies looking to develop rare earths mines and consumers of rare earths looking to secure supply. Given the progress made on Mt Weld and the position the company is building in advanced rare earths processing, we believe LYC is likely to attract attention. As such, we believe possible acquirers of LYC are major industrial and manufacturing consumers of rare earths from Asia (in particular Japan and China), Europe and North America.

Despite the likely corporate appeal of LYC, FIRB's opposition to China Nonferrous Metal Mining's (CNMC) investment in LYC presents a major issue for a potential foreign acquirer. FIRB's objection to the deal surrounded the potential change in control for LYC. Mt Weld is seen as a strategic resource which FIRB appears to favour being controlled by Australian interests. However, some suggest that FIRB concerns were exacerbated by China's position in the rare earths market and the potential for CNMC to manage Mt Weld's supply in a way which benefits China's rare earths industry.

As a result of these concerns, FIRB demanded that any deal between CNMC and LYC involve CNMC taking a non-controlling stake (less than 50% vs. proposed CNMC stake in LYC of 51.6%) and holding less than half of the company's seats on the board. CNMC decided to reject these conditions and walked away from a deal. As a result, we see FIRB's decision on the CNMC-LYC deal as a potential impediment to any foreign takeover of LYC.

## Supply/demand outlook

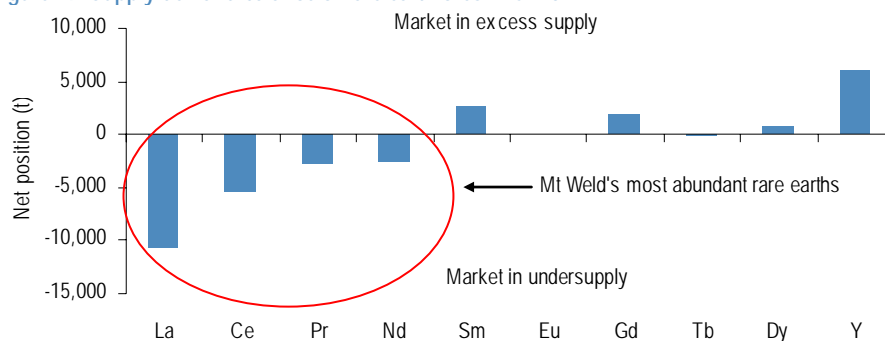
The rare earths market involves demand/supply dynamics across at least 15 different elements. However, we can see several broad themes emerging in the market (discussed in more detail later):

- **Increased demand for rare earths** – Rare earths are being used for an increasingly large number of applications. In consumer products, applications include hybrid electric cars, compact fluorescent lighting, flat panel displays and portable media devices (e.g. MP3 players and iPods). There is also increased demand from industrial users, such as in the petrochemicals, refining and telecommunications sectors, as well as areas such as defense;
- **Reduced supply from China** – Over a number of decades, China has managed to position itself as the world’s dominant supplier of rare earth ores. However, the Chinese government is looking to reduce production and exports for environmental and domestic demand issues; and
- **Difficulty in bringing new supply to market** – Current high prices for rare earths are making a number of deposits economic for development. These include the reopening of old mines, in particular Mountain Pass, California. However, there are likely to be several difficulties involved bringing these supplies to market.

### Undersupply in Mt Weld’s main ores in CY10E

Given the differing demand/supply dynamics across each element, in the chart below we show a range of forecast net supply conditions for CY10E. Of the rare earth ores which LYC’s Mt Weld is most abundant (Cerium (Ce), Lanthanum (La), Neodymium (Nd) and Praseodymium (Pr)), the market is undersupplied.

Figure 29: Supply-demand balance of rare earth ores in CY10E

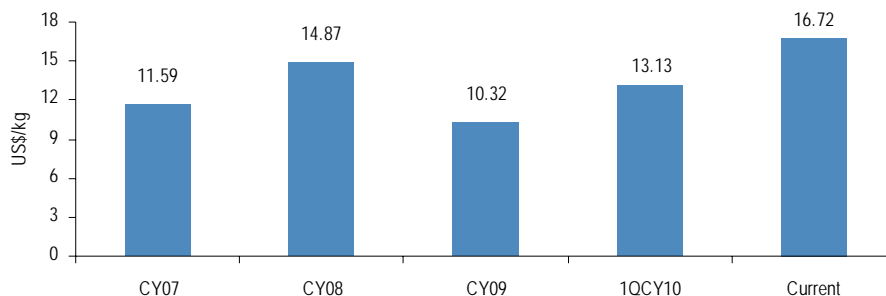


Source: Company presentation, IMCOA

The continuing undersupply in a number of key rare earths is supporting higher prices for all rare earths. Figure 30 below shows the recent price trends of the “basket” price of Mt Weld’s rare earths ores.



Figure 30: Rare earths prices (Mt Weld basket price)



Source: Company presentation. Note: average based on proportion of elements at Mt Weld. CY10 YTD average price as at 22 Jun10

### Undersupply persisting over the medium term

Two industry forecasters, the Industrial Mineral Company of Australia and Roskill, have developed CY14E forecasts for the rare earths market:

- They expect increased demand for rare earths across most major end-uses. In particular, this is driven by increased demand for rare earths for batteries, auto catalysts (both use La, Ce, Pr, Nd), magnets (Pr, Nd) and phosphors (La, Ce); and
- They also factor in the introduction of new supply for a number of new and reopened mines. This includes Mt Weld (22,000t) and Mountain Pass (20,000t) as well as some smaller supplies from Asia and Eastern Europe.

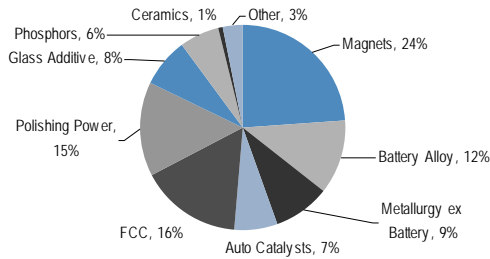
Table 18: CY14E demand forecasts for rare earths by application

Application	CAGR (CY10E-CY14E)	CY14E demand (kt)
Magnets	12%	50
Battery alloy	15%	28
Metallurgy (ex batteries)	2%	13
Auto catalysts	8%	12
Fluid cracking catalysts (FCC)	4%	25
Polishing power	8%	26
Glass additives	-1%	10
Phosphors	8%	11
Ceramics	4%	2
Others	2%	4
<b>Total</b>	<b>8%</b>	<b>182</b>

Source: Company presentation, Roskill

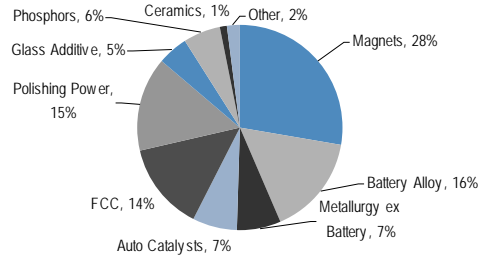
The charts below show the expected change in demand by end-use from CY10E through to CY14E.

Figure 31: CY10E demand forecast by application



Source: Company presentation

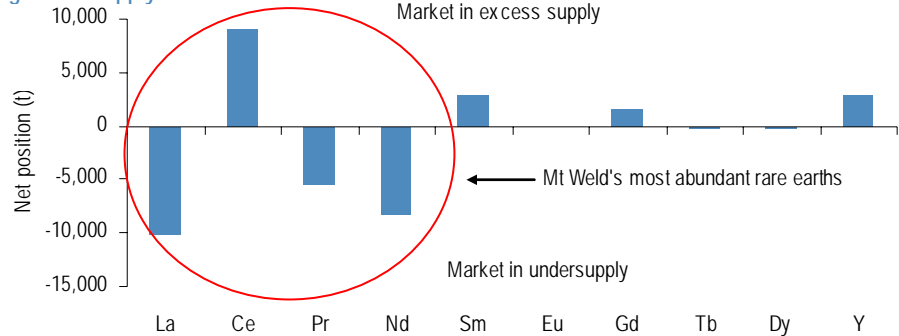
Figure 32: CY14E demand forecast by application



Source: Company presentation

As shown in the chart below, markets for 3 of the 4 rare earths most abundant at Mt Weld are expected to be in undersupply in CY14E.

Figure 33: Supply-demand balance of rare earth ores in CY14E



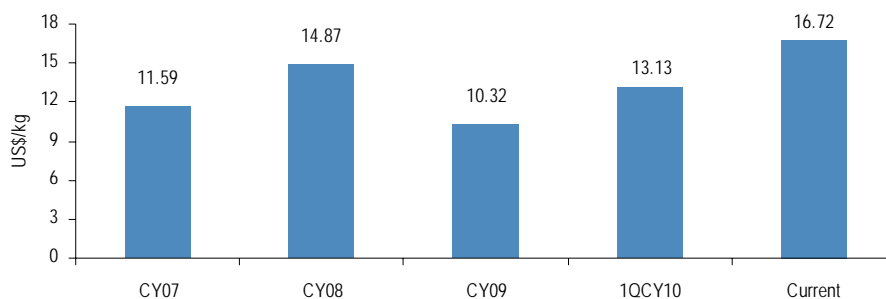
Source: Company presentation, IMCOA

For what it's worth, we understand that many of LYC's key customers view these demand forecasts by IMCOA and Roskill as quite conservative, suggesting there may be a degree of upside risk to these forecasts.

## Rare earths prices

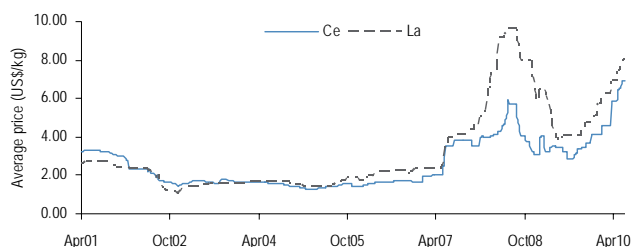
In the absence of exchange-traded pricing, we recognise that rare earths pricing remains quite opaque. LYC regularly posts weekly price updates for a “basket” of rare earths equivalent to the composition found at Mt Weld. We believe this is the most relevant price series for LYC investors.

Figure 34: Rare earths prices (Mt Weld basket price)



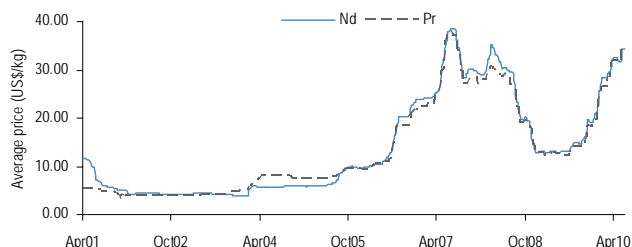
Source: Company presentation. Note: average based on proportion of elements at Mt Weld. CY10 YTD average price as at 22 Jun10

Figure 35: Cerium oxide and lanthanum oxide prices



Source: Asian Metal

Figure 36: Neodymium oxide and praseodymium oxide prices

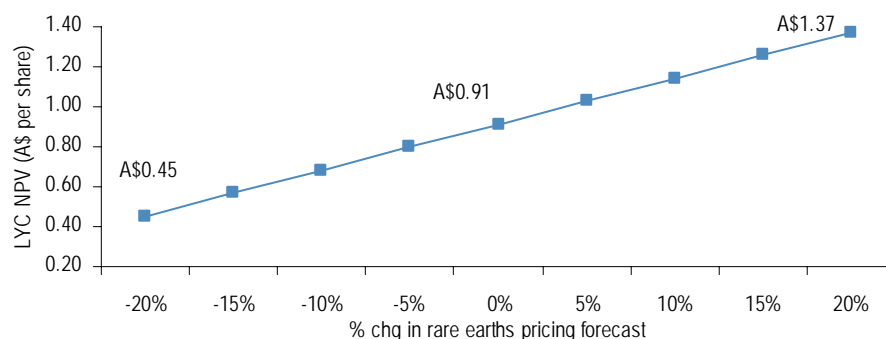


Source: Asian Metal

## Scenario analysis for changes in price assumptions

We have stress tested our base case NPV for changes to our REO price forecasts. Overall, a 5% change in our average REO price forecast leads to a c.12.6% change in our NPV estimate for LYC (see Figure 37).

Figure 37: J.P. Morgan's LYC NPV - rare earths pricing forecast stress test



Source: J.P. Morgan estimates

## Financial issues

### Capex and start up costs for current projects

The key reason for the \$450m Sep09 capital raising was to fully fund the Group's capex requirements for Phase 1 of the integrated rare earths project. According to mgmt's most recent estimate, a further \$339.2m (including contingencies) is left to spend on Phase 1 of the project as well as \$68.1m for working capital and production start-up costs. These cash costs will be spent between FY10E-FY11E and funded from existing cash balances.

Table 19: LYC cash requirements for current projects

	Total	Spend to date	Future spending
<b>Construction &amp; other capital costs</b>			
WA Concentration Plant	61.5	16.4	45.1
Gebeng Cracker & Separator Plant	232.4	45.1	187.3
Engineering & Project Management Costs	136.4	70.7	65.7
Other Capex (incl. land at Gebeng)	74.3	58.9	15.4
Contingency (c. 9%)	25.7	0.0	25.7
<b>Sub-total</b>	<b>530.3</b>	<b>191.1</b>	<b>339.2</b>
<b>Working capital &amp; production ramp-up costs</b>			
Western Australia	28.1	0.0	28.1
Gebeng	22.4	0.0	22.4
Finance, Admin, Marketing, Technical & Corp Overheads	17.6	0.0	17.6
<b>Sub-total</b>	<b>68.1</b>	<b>0.0</b>	<b>68.1</b>
<b>Total</b>	<b>598.4</b>	<b>191.1</b>	<b>407.3</b>

Source: Company presentations (20 Apr10)

### Gearing

LYC is currently in a net cash position following the Sep09 capital raising. Mgmt plans to use the proceeds of the raising to continue capex for the Mt Weld mine and concentration plant in WA and the Advanced Materials Plant in Malaysia. Based on our estimates, the company has sufficient cash to cover its near term capex requirements. As such, our forecasts retain the Group's net cash position through to FY11E. Once production commences at Mt Weld and the Advanced Materials Plant, we expect mgmt to begin to use debt finance to fund the expansion plans under Phase 2. As such, we expect the Group to have modest gearing levels through to FY13E.

### Tax Rate

Although the Australian corporate tax rate is 30% we expect LYC's effective tax rate to be considerably lower. This reflects two key issues – 1) the Group has around \$70m of previous tax losses it can carry forward and 2) the Group has negotiated a zero tax rate for 12-years from start of production with the Malaysian government on earnings from its Advanced Materials Plant.

## LYC management team

### **Nicholas Curtis, Executive Chairman**

Mr Curtis was appointed Executive Chairman in 2004, prior to which he was LYC's President and Chief Executive Officer. Over the past 20yrs, Mr Curtis has held numerous roles in the resources, banking and finance sectors. This includes being Chairman of Sino Gold Limited from Nov00 to Nov05.

### **Gerry Taylor, Chief Financial Officer**

Mr Taylor was appointed Chief Financial Officer in Dec08. Prior to joining LYC, Mr Taylor held several senior finance roles in Australia and overseas, including with The Rose Property Group and Baulderstone Hornibrook.

### **Eric Noyrez, Chief Operating Officer**

Mr Noyrez was appointed Chief Operating Officer in Dec09. Mr Noyrez has extensive experience in the rare earths sector, working with France's Rhodia Group from 9yrs. Mr Noyrez has also worked with Royal Dutch Shell and the Peugeot Citroen Group.

### **Matthew James, Corporate and Business Development**

Dr Matthew James joined Lynas in October 2002 and is Vice President - Corporate and Business Development. He received a BE (Hons) degree in Ceramic Engineering from the University of New South Wales, Australia and Ph.D. in Material Science and Engineering from Queens' College at the University of Cambridge.

### **Mike Vaisey, Technical Development**

Mike Vaisey has been a part of Lynas since February 2000 and has held various positions, including Process Development Manager and Senior Process Development Manager. Mike currently holds the position of Vice President - Technical Development.

### **John Croall, General Manager - WA**

John Croall joined Lynas in November 2007 and is General Manager - Western Australia. He has a Bachelor of Science, Mining Engineering from the University of Strathclyde, Scotland, a Western Australia First Class Mine Manager's Certificate of Competency and a Post Graduate Diploma in Finance and Investment from the Securities Institute of Australia.

### **Mashal Ahmad, General Manager - Malaysia**

Mashal Ahmad joined Lynas in March 2008 as the Malaysia General Manager/Country Manager. He has a Bachelor of Science degree in Production Engineering from the University of Nottingham - Trent, England.

## Appendix

Table 20: LYC key events

Date	Event
Jan10	Extends rare earths supply contract and signs Technical Cooperation Agreement with Rhodia for Advanced Materials Plant
Sep09	\$450m unconditional placement, conditional placement and pro-rata entitlement offer; enables restart of works at Mt Weld and Advanced Materials Plant
Sep09	China Nonferrous Metal Mining (Group) Co., Ltd (CNMC) terminates transaction with LYC
Aug09	Acquires rights to phosphate minerals at Mt Weld from WES' CSBP
May09	CNMC enters into agreements to provide debt and equity funding for Mt Weld, with CNMC to become majority shareholder in LYC
Mar09	Settles court action with US\$95m convertible bond holders; funds from convertible bond issue repaid
Feb09	Suspends work on Mt Weld mine development and Advanced Materials Plant
Feb09	Dispute with US\$95m convertible bond holders
Jan09	Accepts offer to create a \$30m standby equity facility with YA Global
Jan09	Signs 6th offtake customer for Advanced Materials Plant; allows LYC to draw down US\$105 million senior loan facility and release US\$95 million convertible bond monies from escrow
Apr08	\$94.5m share placement
Feb08	Receives approvals for Advanced Materials Plant from Malaysian authorities
Nov07	US\$95m convertible bond issue
Sep07	Secures land for Advanced Materials Plant in Malaysia
Sep07	Signs purchase agreement for Kangankunde Carbonatite Complex (KGK) rare earth deposit in Malawi
Aug07	\$60m share placement
Aug07	After discussions with the Malaysian government LYC decides to relocate planned Advanced Materials Plant to Pahang, Malaysia
Jul07	US\$105m senior loan facility
May07	Signs 1st offtake customer for Advanced Materials Plant
May07	Conversion of \$35m convertible notes into ordinary shares
Apr07	Receives mining proposal approval for Mt Weld from WA government
Oct06	Selects Kemaman, Malaysia as location for Advanced Materials Plant
Jun06	\$40m share placement
Apr06	\$35m convertible note issue
Feb06	Signs Heads of Agreement with Rhodia covering rare earths supply and cooperation on processing in China
Jan06	Share placement to RAB Capital plc
Jul05	Sells stake in AMR Technologies Inc.
Jun05	AMR Technologies Inc. ceases legal action against LYC
Mar05	Completes Mt Weld feasibility study
Mar05	AMR Technologies Inc. commences legal action against LYC
Jan04	Increases stake in AMR Technologies Inc. to 19.92%
Jul03	\$10m convertible note issue
Jun03	\$1.95m share placement
Jul02	\$3.5m convertible note facility
Apr02	Sale of Klondyke Gold Project
Nov01	Sale of Paraboroo Gold Project
Oct01	Acquires Anaconda Nickel's stake in Mt Weld
Jul00	LYC increases stake in Mt Weld to 51% following transactions with Anaconda Nickel
Jul99	Enters into Heads of Agreement to take initial 35% stake in Mt Weld
Mar99	Shareholder meeting approves change in company name to Lynas Corporation from Lynas Gold
Sep86	Lynas Gold lists on the ASX

Source: Company announcements

## Financial Summary: Lynas Corporation

### PROJECTED RETURN AND RATING

Current share price (A\$ per share)	0.55 (as at 24/06/10)
Target price as at 30 June 2011	0.91
Projected return (incl. Gross DPS)	66%

<b>Recommendation</b>	<b>OVERWEIGHT</b>
Shares on issues (m)	1,655.2
LYC market cap (A\$m)	910

### TRADING MULTIPLES (x)

Year ending 30 June	2008A	2009A	2010E	2011E	2012E
LYC					
EBITDA	(17.6)	(23.0)	(29.6)	(40.9)	18.1
EBIT	(17.5)	(22.7)	(28.6)	(39.6)	151.3
PE pre-abnormals	(10.7)	(8.5)	(92.3)	(55.8)	190.5

### NPV VALUATION SUMMARY (A\$ per share)

Integrated Rare Earths Project (Phase 1 & 2)	1.06
Net Cash (Debt)	0.07
Corporate Costs/Other	(0.22)
<b>Total</b>	<b>0.91</b>
Price/NPV	0.60x

### GROUP CONSOLIDATED PROFIT AND LOSS (A\$m)

Year ending 30 June	2008A	2009A	2010E	2011E	2012E
Sales Revenue	0	0	0	0	138
EBITDA	(38)	(39)	(18)	(19)	51
Depreciation	(0)	(1)	(1)	(1)	(45)
Amortisation	0	0	0	0	0
EBIT	(38)	(39)	(19)	(20)	6
Net interest expense	(8)	3	(12)	(4)	1
Pre-tax profit	(30)	(42)	(7)	(16)	5
Tax expense	0	0	0	0	0
Associates	0	0	0	0	0
Minorities	0	0	0	0	0
NPAT pre-abnormals	(30)	(42)	(7)	(16)	5
Abnormals after tax	9	13	(2)	0	0
Reported net profit	(21)	(29)	(9)	(16)	5
<b>EPS pre-abnormals (cents per share)</b>	<b>(5)</b>	<b>(6)</b>	<b>(1)</b>	<b>(1)</b>	<b>0</b>
Reported EPS (cents per share)	(4)	(4)	(1)	(1)	0
Ordinary DPS (cents per share)	0	0	0	0	0
Special DPS (cents per share)	0	0	0	0	0
Franking (%)	0%	0%	0%	0%	0%

### SALES (Equity, kt)

Year ending 30 June	2008A	2009A	2010E	2011E	2012E
Integrated Rare Earths Project	0.0	0.0	0.0	0.0	7.0

### KEY ASSUMPTIONS

Year ending 30 June	2008A	2009A	2010E	2011E	2012E
AUD:USD exchange rate	0.897	0.747	0.879	0.885	0.898
Weighted avg REO (100%) basket price (US\$/kg)			16.78	17.15	17.69

### RESERVES & RESOURCES

as at 30 June 2009	Mt	EV/tonne
Resource	110	8.10
Reserve	2	425.6
Marketable Reserve	2	425.6

### GROUP CONSOLIDATED CASHFLOW (A\$m)

Year ending 30 June	2008A	2009A	2010E	2011E	2012E
EBITDA	(38)	(39)	(18)	(19)	51
Net interest paid	8	6	6	6	4
Tax paid	0	0	0	0	0
Working capital	14	4	6	0	(5)
Provisions/Other	(10)	0	(15)	(3)	4
Operating cashflow	(25)	(28)	(20)	(16)	54
Capex/Acquisitions	(35)	(104)	(50)	(241)	(187)
Exploration	(3)	(2)	(2)	(2)	(2)
Other	(1)	2	(0)	(0)	0
Investing cashflows	(39)	(105)	(52)	(243)	(189)
Net borrowings	0	0	0	0	60
Equity raised	159	0	432	0	0
Dividends & distributions paid	0	0	0	0	0
Other	(13)	5	0	0	0
Financing cashflows	146	5	432	0	60
Other cashflow items	(0)	(1)	(0)	0	0
Net cashflow	81	(129)	359	(258)	(75)

### GROUP CONSOLIDATED BALANCE SHEET (A\$m)

Year ending 30 June	2008A	2009A	2010E	2011E	2012E
Cash	244	17	376	118	43
Receivables	4	2	5	5	10
Investments	0	0	0	0	0
Inventories	19	21	22	22	17
Overburden in Advance	0	0	1	1	8
Net PPE	42	152	229	469	611
Exploration/Evaluation	25	25	23	23	23
Intangibles	1	0	0	0	0
Other	39	26	28	28	28
<b>Total assets</b>	<b>348</b>	<b>218</b>	<b>660</b>	<b>642</b>	<b>717</b>
Borrowings	0	0	0	0	60
Prvsn & Defrd Tax	7	12	6	6	6
Accounts payable	12	8	5	5	10
Other	107	0	0	0	0
<b>Total liabilities</b>	<b>127</b>	<b>20</b>	<b>10</b>	<b>10</b>	<b>76</b>
Equity	286	288	755	753	758
Reserves	4	7	1	1	1
Retained profits	-68	-97	-106	-123	-118
Minorities	0	0	0	0	0
<b>Total s/h funds</b>	<b>221</b>	<b>198</b>	<b>649</b>	<b>632</b>	<b>641</b>

### RATIO ANALYSIS (%)

Year ending 30 June	2008A	2009A	2010E	2011E	2012E
Revenue growth YoY	n/a	n/a	n/a	n/a	0%
EBITDA margin	n/a	n/a	n/a	n/a	37.0%
EBIT margin	n/a	n/a	n/a	n/a	4.4%
PAT margin	n/a	n/a	n/a	n/a	3.5%
Effective tax rate	0%	0%	0%	0%	0%
<b>EPS pre-abnormals growth YoY</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>
Return on assets	-9%	-19%	-1%	-3%	1%
Return on equity	-14%	-21%	-1%	-3%	1%
Payout ratio (ordinary div. only)	0%	0%	0%	0%	0%
<b>Dividend yield</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>
Gearing (Net debt/equity)	-110%	-8%	-58%	-19%	3%
Interest cover	4.9	n/a	1.6	5.4	5
Capex/depreciation (x)	-119.1	-163.4	-77.8	-376.4	-4.2
Asset turn (x)	0.0	0.0	0.0	0.0	0.2

Source: Company data, J.P. Morgan estimates.

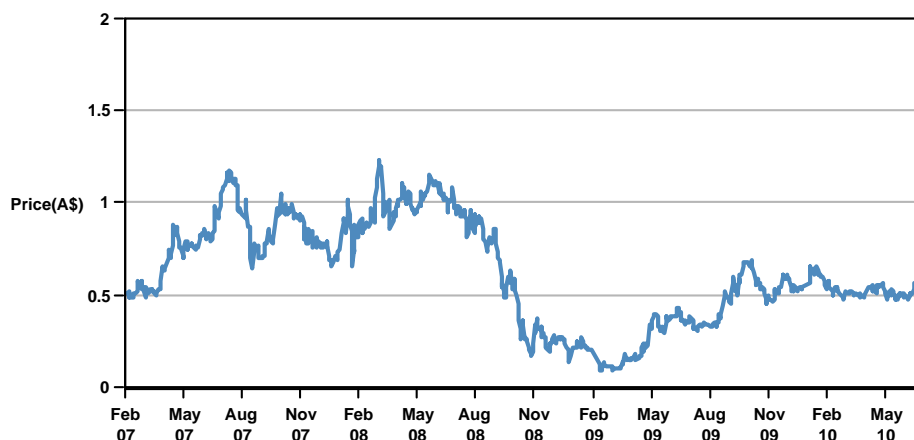
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