



# Strong Buy Brinkley Mining\*

## Unlocking uranium in the DRC

**Current price** 25.25p  
**Target price** 40p

**Market cap:** £78.2m  
**Shares in issue:** 309.8m  
**NAV (FY1):** £24.7m  
**Gearing (FY1):** 40.4%  
**Interest cover (FY1):** 8.6x

[Full valuation data on back page](#)

### Performance

	Stock	All-Share
1 month:	5.2%	0.6%
3 months:	-1.0%	2.2%
12 months:	9.8%	14.8%

### High/low:

12 months: 30p/15.25p

**Last results:** Finals, 7 Mar 07

**Next results:** Interims, 31 Dec 07

**Next event:** Interims, 31 Dec 07

**Reuters/BBG** BRM.L/BRM LN

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*Priced at close 11 July 2007*

**We have raised our target price to 40p following news that Brinkley Mining has signed a framework agreement with the DRC government that significantly advances the previous memorandum of understanding (MoU). The agreement provides Brinkley with a 75% effective interest in the country's uranium projects via a joint venture, with the remaining 25% held by the DRC's Atomic Energy Agency (CGEA) and the state. On a conservative estimate, the DRC resources are worth at least £51m to Brinkley, though this is just the tip of the iceberg in such an under-explored and uranium-rich region.**

Year to Dec	Sales £m	PBT £m	EPS p	EPS growth %	DPS p	Yield %	P/E x	EV/EBITDA x	VORR x
2006A	0.0	-2.6	-1.2	nm	0.0	0.0	na	na	-1.5
2007E	0.0	-4.0	-1.3	9.7	0.0	0.0	na	na	-1.3
2008E	0.0	-2.0	-0.6	-49.6	0.0	0.0	na	na	-3.0
2009E	0.0	-2.7	-0.9	34.1	0.0	0.0	na	na	-2.4

*Source: Arbuthnot estimates, company data*

- **Framework agreement with the DRC government** The announcement demonstrates the validity of the previous MoU and provides Brinkley with unprecedented access to the DRC's known high-grade uranium deposits via a JV. Under the agreement, the CGEA guarantees the JV the rights to explore or mine uranium and will procure any necessary approvals or permits required for their development. The CGEA and Brinkley have said that Shinkolobwe, Mindigi, Kalongwe, Kasompi, and Samboa will be developed immediately. As a separate transaction, the 30% minority interests in Brinkley Africa have been moved to the shareholder level in Brinkley for a consideration of £8.8m (40m shares and £0.5m cash). The agreements provide Brinkley with a 75% effective interest in the DRC's uranium projects, vs. 56% previously (70% of 80%).
- **Access to significant uranium resources** The DRC has significant areas of known uranium mineral occurrences. The agreement focuses on the southern Katanga region which contains Shinkolobwe and the other deposits which occur over a 300km strike length. Shinkolobwe produced over 65mlb of uranium oxide between 1944 and its closure in the 1960s. A high grade vein-hosted deposit, Shinkolobwe contained between 10-65% U<sub>3</sub>O<sub>8</sub>, vs. the current industry norm that classifies 0.5% as high grade.
- **Exploration to begin** Brinkley intends to mobilise a technical team to its Lubumbashi office to focus initially on evaluating the existing drill data and begin field mapping to determine drilling targets for exploration. Based on the amount of historical drilling (including 40,000m of diamond drilling) and test work, the intention is to fast track a bankable feasibility.
- **Valuation** This framework opens access to >11mlb of known historical uranium resources in a prospective region that has been significantly under-explored. This quantity is just a starting point as it is likely that any resource identified through further exploration could be 10x this estimate. Taking a value of \$12/lb of uranium oxide (Areva paid \$18/lb for UraMin), the resources are worth at least £51m to Brinkley Mining, providing a new target price of 40p (from 35p), representing c.60% upside potential. However, further evaluation of this agreement and of the resources in the DRC could provide the opportunity to increase this target price further.

## Overview

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### Company activities

Brinkley Mining is a uranium-focused exploration & development company. The new framework contract allows the company to explore, develop and exploit the significant uranium resources of the DRC under a 75% joint venture with the DRC's Atomic Energy Agency (CGEA), with initial share capital of \$3m. In South Africa, Brinkley is drilling at the Waterval uranium project (49% held), to complete a resource statement by the end of September 2007. Brinkley has also been granted prospecting rights over one portion of the Reitkuil farm and has applications pending on the remaining 18 portions applied for. The framework contract provides Brinkley with unprecedented access to the DRC's under-developed uranium resources in partnership with the DRC government. In return, Brinkley is to provide \$1.2m to assist the CGEA and the Ministry to refurbish a reactor for nuclear research and assist in the control of radioactive mined products.

### Key issues on which investors must take a view

The framework contract has been signed by the Commissioner of the CGEA under the authority of the Minister of Scientific Research and Technology, who has responsibility for the country's uranium and nuclear activities. This contract appears to have considerable government support and is expected to be ratified by the president once signed off by the cabinet over the coming weeks. While the signing of a detailed framework provides much validity to the agreement and maps out the access to a tangible share of the DRC's uranium assets, there is a risk that the final hurdle of a presidential approval may not be achieved. However, recent press reports suggest that this approval will be granted shortly. In addition, Brinkley's potential depends largely on the performance of the commodity and investor sentiment towards uranium companies. We believe the outlook for uranium is positive based on the strong underlying market fundamentals.

### Likely direction of consensus revisions

The AIM market is currently suffering indigestion from exploration companies. The relative immaturity of the sector is weighing heavily and the market has yet to be convinced on the upside potential of such companies. However, with this DRC agreement, Brinkley Mining is likely to gain significant traction in the DRC, while the Waterval project in South Africa will provide further support to the share price once a JORC-compliant resource is defined. Brinkley has also lodged application rights across Africa, which would provide additional positive newsflow.

### Valuation and reason behind target price

Our new target price of 40p per share is based on Brinkley's share of the historically-defined resources prioritised for development by the agreement and the potential value of the South African prospects. However, the DRC value is merely the tip of the iceberg as the region is under-explored and Shinkolobwe shows the area's potential for high-grade large-scale deposits.

### Risks to our view

The fundamentals of the uranium market remain positive: there is a shortage of long-term sources of supply at the same time as demand is increasing from the number of nuclear power plants waiting to be constructed. Price risks over the long term can be protected by selecting uranium companies with high-grade deposits which will provide low operating costs over the long term. South Africa and the DRC both contain some risk due to uncertainty over the future government direction regarding long-term mining resource ownership. This is in addition to the specific risks to Brinkley if it fails to gain presidential approval for the agreement in the DRC or does not secure the outstanding rights in South Africa. However, we believe that the upside potential offers sufficient reward for these risks.

## Investment case

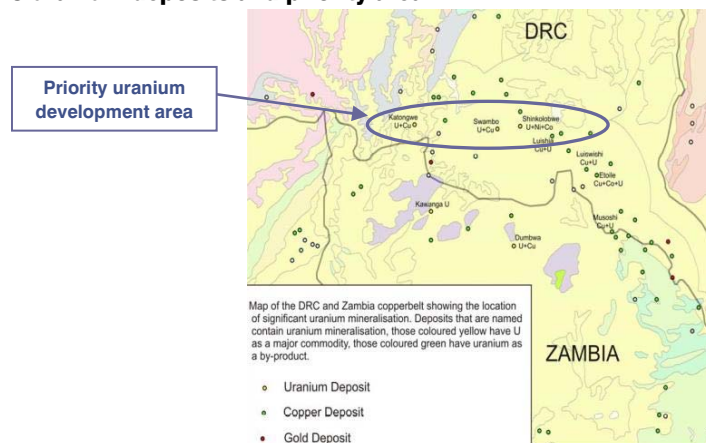
### DRC agreement opens access to country's uranium resources

#### Significant framework in place unlocks DRC's uranium prospects

Brinkley has negotiated an agreement with the DRC which gives it the right to explore, mine and treat deposits of uranium. This will be held through a joint venture company held 75% by Brinkley Mining and 25% by the CGEA and DRC government. A major development is the detailed framework that has been agreed. Of most significance is that under the framework, the CGEA and Brinkley Mining have identified the following sites for immediate development, all of which are located in the Katanga region over a 300km strike length zone containing occurrences of high grade vein-hosted uranium mineralisation:

- **Shinkolobwe:** Four areas have been named including the Shinkolobwe mine, a historically significant producer of uranium, with grades ranging 10-65%  $U_3O_8$ , closed in the 1960s.
- **Kalongwe:** 120km west of Shinkolobwe, uranium was first observed in the 1930s. Drilling and underground work produced a resource estimate at an average grade of 0.1%  $U_3O_8$ .
- **Mindigi:** (including the Swambo deposit) 36km west of Shinkolobwe. Discovered in the 1950s with drilling and exploration conducted primarily for Nickel and Cobalt, noting grades of up to 1%  $U_3O_8$ .
- **Kasompi and Samboa:** sites with prior drilling and a historical resource estimate, occurring along the regional structure (an anti-clinal zone) from Shinkolobwe and Kalongwe.

**Figure 1: DRC uranium deposits and priority area**



Source: company data

### Shinkolobwe is indicative of the prospectivity of the uranium rich region

Shinkolobwe is the main area, being a high grade and significant brownfield site. It may be possible to rapidly re-develop the mine (including potentially processing the tailings and dumps) into a producing asset, depending on the conditions at the mine. Whether or not Shinkolobwe could be re-opened, the mineralisation is high grade and the highly prospective region of known uranium deposits is now available to Brinkley Mining to develop.

#### Uranium price performance remains positive

Despite less frenzy in the recent buying market, the outlook for uranium is positive. The  $U_3O_8$  price has risen over 14x since 2001 as concerns have grown regarding the limited availability of long-term uranium supplies. Over the last 12 months, the  $U_3O_8$  price has climbed c.200% vs. just an 10% increase in Brinkley Mining's share price over the period.

#### Target price still represents a discount to internationally-listed peers

Our valuation of Brinkley, which we detail in the next section, is based on both the value of a potential share of a minimum estimate of the known uranium resources of the DRC and the resource value of the South African assets. This gives us a revised target price of 40p/share.

### Positive outlook for $U_3O_8$ driven by strong, long-term fundamentals

### Target price of 40p based on prospective resource value

## Brinkley valuation

Valuation based on the prospective resource size available to Brinkley

Assuming the demand for uranium continues to support higher long-term prices, it is possible to determine a forward valuation for Brinkley Mining. As is the case for the majority of uranium explorers, JORC-compliant resources have yet to be defined by the company, therefore we have concentrated our valuation on the resource potential of two parts of Brinkley's current business:

- the prospective resource under the DRC agreement
- the South African uranium prospects

### Value of the DRC agreement

We undertook a review of the information available regarding the known uranium resources in the DRC. This is prospective or historical resource estimates for areas that have been under-explored and represent a 'minimum' resource available. Applying Brinkley's share of ownership under the agreement, we calculated the DRC resource valuations shown in Table 1 below (also based on a price of \$12/lb).

**Table 1: Value of the DRC agreement**

Site	Source	Potential resource mlb U <sub>3</sub> O <sub>8</sub>	Brinkley Mining share (%)	Resource market value \$/lb	Value \$m    £m	
Shinkolobwe*	Brinkley Mining	4.0	75	12	36	18
Mindigi	Brinkley Mining	4.0	75	12	36	18
Kalongwe	ACP Geological Map Data Bank	0.8	75	12	7	4
Kasompi & Samboa	IAEA - World Distribution of Uranium Deposits Database	2.6	75	12	23	12
<b>Total</b>		<b>11.4</b>			<b>103</b>	<b>51</b>

Source: [www.iaea.org](http://www.iaea.org), *Mining Journal*, [www-nfcis.iaea.org](http://www-nfcis.iaea.org), [mines.acp.int](http://mines.acp.int), *Brinkley Mining* (\*Note: excludes possible resource contained in the old mine)

We have assumed the £51m value as shown in Table 1 above for our valuation of Brinkley Mining however, it is likely that the company will have to define more than the 11mlb stated above for a mining venture to be feasible. Given the large endowment of minerals in the DRC, we believe this is likely. We argue that the upside is captured in the \$12/lb metric that is common to uranium stocks, which all contain upside in their stated resources. We have then combined the value of the DRC opportunity with the South African prospects, to determine the total company valuation, using the new cash and share structure post the transaction to acquire the 30% of Brinkley Africa.

DRC agreement valued at £51m

**Table 2: Company valuation**

(£m)	Valuation
SA assets	73
DRC assets	51
<b>Enterprise value</b>	<b>124</b>
Cash	16
<b>Market value</b>	<b>140</b>
Number of shares (m)	350
<b>Share price (p)</b>	<b>40</b>

Source: *Arbuthnot estimates*

This sets a new price target of 40p per share

Based on this analysis, we value Brinkley Mining at 40p a share - a c.60% potential gain on the current price. At last night's closing price of 25.25p (11 July 2007), the DRC investment in the company is free. Given that the Minister of Scientific Research and Technology has stated that the uranium industry could yield \$900m pa to the DRC, we believe the potential upside of this deal is worth the downside risks in this case.

## Uranium outlook

**14-fold increase in U<sub>3</sub>O<sub>8</sub> price since 2001**

Over recent years, investors have been attracted to the strong gains seen in the mining sector, fuelled by booming commodity prices. This boom has definitely not missed uranium, with the fuel (U<sub>3</sub>O<sub>8</sub>) experiencing a 14-fold increase in the price from c.\$9/lb in 2001 to a current spot price of \$133/lb. Note that throughout this report we apply the terms 'uranium' and 'U<sub>3</sub>O<sub>8</sub>' interchangeably, in line with industry practice and for simplicity. Prices have so far climbed 85% YTD, rising from \$72/lb in January. These price increases have resulted from positive supply & demand dynamics and a change in attitude towards uranium as a cleaner power supply alternative to fossil fuels.

### Uranium supply & demand summary

**Demand for nuclear power driving U<sub>3</sub>O<sub>8</sub> demand**

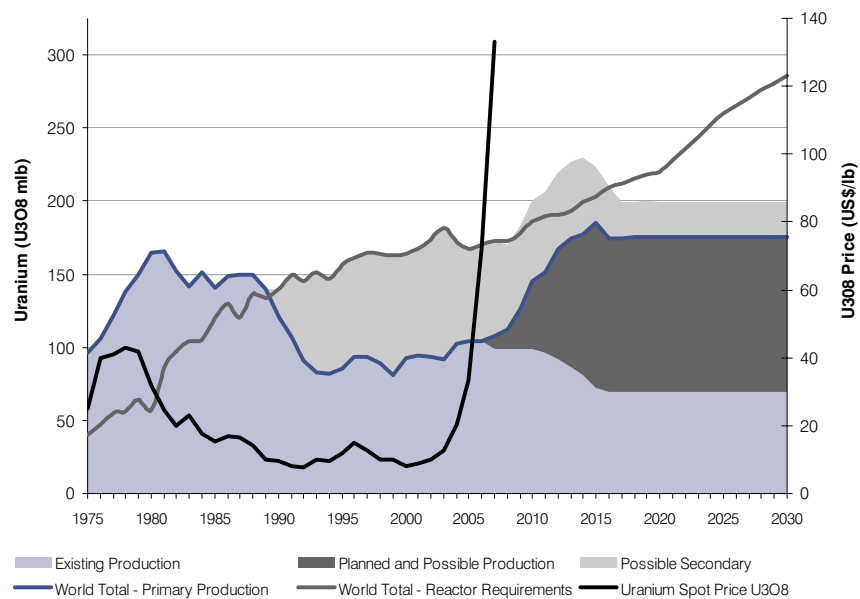
The dynamics of the supply & demand for uranium is driven by strong underlying fundamentals within the energy industry. Nuclear power is increasingly being considered an important base-load generation alternative. Headline energy concerns over:

- the security of energy supply,
- the cost of energy,
- the current dependence on fossil fuels, and
- global warming

have sparked the resurgence in the nuclear power option. Uranium demand has consequently experienced long-term growth in line with the increased demand for nuclear reactors and this is expected to continue.

The supply & demand for uranium out to 2030 has been forecast by the World Nuclear Association (WNA). The 'reference case' supply & demand is illustrated in Figure 2 below.

**Figure 2: Uranium supply & demand, 1975-2030E**



Source: WNA, Bloomberg data

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**Demand currently outstripping primary mine production by 1.8x**

Over the 10 years to 2005, nuclear reactor demand for uranium grew by approximately 2% pa. The total demand for uranium is dictated by the number of nuclear reactors in operation, modified by a number of factors.

During this same period, uranium demand has exceeded primary mine production by 1.8x. This has been a result of the under-investment in the exploration & development of new uranium projects during the 1990s when prices were low. This shortfall has so far been met by secondary uranium sources ie, inventory consumption of industry stockpiles and down-blended weapon grade material and the recycling of by-products from the reactor and enrichment processes.

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**Concerns over securing long-term supply is driving the uranium price**

The WNA forecasts that uranium demand will continue to increase by 2% pa over the next 25 years. This results from the potential construction of 160 new nuclear reactors, as well as the existing requirements of the 441 plants already in operation. At this rate, despite forecasting primary mine production increases and the consumption of available uranium stocks, the cumulative shortage in uranium supply exceeds 400mlb by 2030E. Concern over the growing long-term supply shortage is the key driver behind current price increases. This is the case even though Figure 2 demonstrates that over the next 10 years, secondary uranium supplies will generate a potential excess of over 250mlb. This is because the secondary supply excess is only equivalent to 1.5 years' worth of the total future annual reactor requirements, and therefore worries are increasing in a climate where many reactors need to secure long-term sources of supply as the life of a reactor commonly exceeds 30-50 years.

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**High prices anticipated to continue over long term**

In an environment where there is insufficient long-term uranium available, prices need to be increased to levels (above \$50/lb) that are sufficient to attract increased uranium exploration & development, following the under-investment of the 1990s. In addition to long-term higher prices, some analysts are predicting possible short-term price increases to over \$200/lb in real dollar terms. Furthermore, shocks to supply such as the Cameco's Cigar Lake Project flooding incident at the end of October 2006 (which has made the market even tighter by removing c.15% of primary production from the market annually until 2010) will also serve to drive prices higher.

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The company has seen this research but no material changes have been made as a result.  
Arbuthnot has provided investment banking services to this company within the last 12 months.

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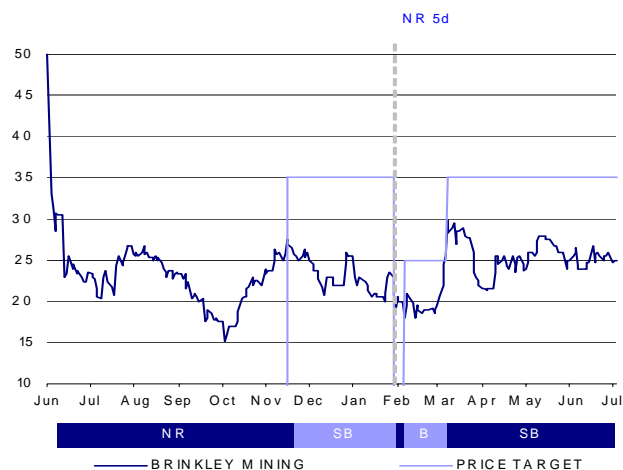
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Company valuation ratios (x)	2007E	2008E
EV/Sales	nm	nm
EV/EBITDA	-18.5	-35.4
EV/EBITDA REL	-2.5	-5.2
P/E	nm	nm
P/E rel	-1.8	-3.8
P/CEPS	-3.2	-5.2
P/NAV	3.2	3.4
EV/IC	3.4	3.3
ROIC (%)	-18.2	-9.5
ROIC/WACC	-2.6	-1.1
VORR	-1.3	-3.0
3-year PEG	2.3	
Trend PEG	nm	
3-year CASH PEG	-0.4	
Trend CASH PEG	nm	
EV/Sales/G	nm	
Industry attractiveness /25	16	

Source: Arbutnot estimates; growth rates from last actual

#### Share price and recommendation tracker graph (two years)



Source: Thomson Financial, Arbutnot

Summary financial data, year to Dec (£m)	2006A	2007E	2008E	
Sales	0.0	0.0	0.0	0.0
EBITDA	-3.1	-4.5	-2.2	-2.8
Operating Margin (%)	nm	nm	nm	nm
EBIT	-3.1	-4.5	-2.2	-2.8
Interest charge	0.5	0.5	0.1	0.1
PBT	-2.6	-4.0	-2.0	-2.7
Tax rate (%)	0.0	0.0	0.0	0.0
Underlying tax rate	0.0	0.0	0.0	0.0
NOPLAT	-3.1	-4.5	-2.2	-2.8
Profit after tax	-2.6	-4.0	-2.0	-2.7
Reported EPS (p)	-1.2	-1.3	-0.6	-0.9
Underlying EPS (p)	-1.2	-1.3	-0.6	-0.9
Underlying EPS YoY growth (%)	nm	9.7	-49.6	34.1
DPS (p)	0.0	0.0	0.0	0.0
Basic no. of shares (m)	309.8	309.8	309.8	309.8
Fully diluted no. of shares (m)	225.9	309.8	309.8	309.8
Operating cashflow	-0.9	-13.1	-2.9	-3.5
Depreciation	0.0	0.0	0.0	0.0
Provision utilisation	0.0	0.0	0.0	0.0
Change in working capital	-0.3	-12.6	-2.8	-3.4
Cash tax paid	0.0	0.0	0.0	0.0
Capex	-0.9	-11.6	-12.3	-13.1
Asset disposals	-0.3	-0.5	0.0	0.0
Cash earnings	-1.3	-24.2	-15.1	-16.5
CEPS (p)	-0.6	-7.8	-4.9	-5.3
Fixed tangible assets	7.6	10.6	10.6	10.6
Goodwill	2.2	9.9	10.6	11.4
Other assets	17.1	4.5	1.7	-1.7
Total assets	26.9	24.9	22.9	20.2
Current liabilities	0.2	0.2	0.2	0.2
Long-term liabilities	0.0	0.0	0.0	0.0
All liabilities	0.2	0.2	0.2	0.2
Net debt	16.6	10.0	0.1	0.1
Gearing (%)	62.2	40.4	0.2	0.2
Net asset value	26.7	24.7	22.7	20.1

Source: Company data, Arbutnot estimates