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# Deep Yellow Limited (DYL)

## Initiation of Coverage

**Recommendation**
**Buy** (Initiation)

**Price**
**\$0.78**
**Valuation**
**\$1.05** (unchanged)

**Risk**
**Speculative**
**GICS Sector**
**Materials**
**Expected Return**

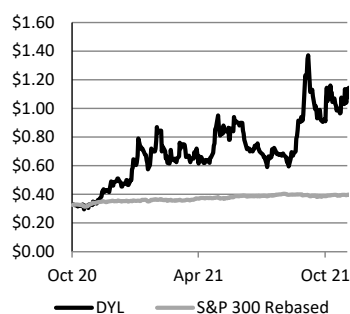
Capital growth	<b>35%</b>
Dividend yield	<b>0%</b>
Total expected return	<b>35%</b>

**Company Data & Ratios**

Enterprise value	<b>\$506m</b>
Market cap	<b>\$571m</b>
Issued capital	<b>732m</b>
Free float	<b>97%</b>
Avg. daily val. (52wk)	<b>\$2.2m</b>
12 month price range	<b>\$0.55-\$1.25/sh</b>

**Price Performance**

	(1m)	(3m)	(12m)
Price (A\$)	1.13	0.62	0.92
Absolute (%)	-31.0	26.8	-14.8
Rel market (%)	-29.6	26.1	-6.7

**Absolute Price**


SOURCE: IRESS

### Take a Deep breath, we're going bargain hunting

We initiate coverage on DYL with a Speculative Buy rating and a \$1.05/sh valuation, following their successful merger with former ASX uranium developer Vimy resources (VMY – delisted). The combined entity boasts two advanced projects in the Tumas Uranium Project (TUP) and the Mulga Rock Project (MRP), with over 390mlbs in Mineral Resources, a pathway to +6mlbs annual production and an experienced team with a track record of developing uranium projects. DYL trades on a \$1.24 Enterprise Value \$/lb of Resource basis, representing a 77% discount to ASX uranium peers. We estimate DYL could be producing at TUP by the end of 2025 with MRP following shortly after, in line with when Management predicts peak tightness in U<sub>3</sub>O<sub>8</sub> supply.

### Nuclear demand exacerbating U<sub>3</sub>O<sub>8</sub> shortfall

We estimate the current annual shortfall in U<sub>3</sub>O<sub>8</sub> supply at ~37mlbs, expanding to ~56mlbs by the end of the decade based on current reactor requirements (160mlbs pa) and restart operations returning to production. The global fleet of nuclear reactors will require fresh U<sub>3</sub>O<sub>8</sub> supply, irrespective of an expansion in reactor capacity, which will require long-term prices to lift to between US\$60-70/lb over the coming years. With the IEA estimating nuclear capacity at 800GW by 2050 to meet net-zero ambitions, the additional annual supply required jumps by ~200mlbs, further exacerbating market tightness and forcing fuel buyers to sharpen their pencils to access supply.

### Investment thesis: Speculative Buy, Valuation A\$1.05/sh

We initiate on DYL with a Speculative Buy rating and an NPV based valuation of A\$1.05/sh. Uranium continues to recover from cyclical lows, as limited near-term supply spurs the spot market whilst the global path to decarbonisation shapes the role of nuclear over the longer-term. Following the merger with VMY, DYL has a Mineral Resource Estimate (MRE) of 392mlbs U<sub>3</sub>O<sub>8</sub>, and an Ore Reserve of 110mlbs. With their advanced TUP progressing towards a definitive feasibility study (DFS) by the end of 2022 and the MRP commencing a revised DFS, DYL looks to become a globally diversified, multi-asset producer by the middle of the decade.

**Earnings Forecast**

Year end 30 June	2022a	2023e	2024e	2025e
Sales (A\$m)	0	-	-	-
EBITDA (A\$m)	(7)	(7)	(7)	(48)
NPAT (reported) (A\$m)	(7)	(6)	(27)	(82)
NPAT (adjusted) (A\$m)	(7)	(6)	(27)	(82)
EPS (adjusted) (eps)	(1.8)	(0.8)	(1.9)	(3.7)
EPS growth (%)	nm	nm	nm	nm
PER (x)	0.0 x	0.0 x	0.0 x	0.0 x
FCF Yield (%)	-4%	-1%	15%	-17%
EV/EBITDA (x)	-73.6 x	-73.5 x	-49.5 x	-15.1 x
Dividend (eps)	-	-	-	-
Yield (%)	0%	0%	0%	0%
Franking (%)	0%	0%	0%	0%
ROE (%)	-12%	-6%	-11%	-14%

SOURCE: BELL POTTER SECURITIES ESTIMATES

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# Investment thesis

## Speculative Buy – Valuation \$1.05/sh

We initiate on DYL with a Speculative Buy rating and a \$1.05/sh valuation. Our investment thesis is based on:

### 1. Strong uranium market fundamentals

- U<sub>3</sub>O<sub>8</sub> spot prices and long-term contract prices have risen 98% and 58% respectively since the beginning of 2020 (now around US\$49/lb and US\$51/lb), as momentum for nuclear energy adoption continues to build. We expect spot prices to rise to US\$60/lb over the medium term and the historical premium for long term contracts of ~20% to be applied over the long term.
- Our outlook is supported by 1) a short-medium term supply shortfall outlook of ~37mlbpa, expanding to ~56mlbpa by the end of the decade (excluding additional take up of nuclear energy), 2) a near term demand spike caused by extensions to reactor lifespans (e.g. Germany) and conflict affected production (Russian enriched uranium) in reaction to the ongoing war in Ukraine, and 3) a supportive long term demand outlook with 60 reactors under construction, 96 planned and 332 proposed. By 2050, the IEA nuclear forecast implies an ~800 reactor fleet.
- We estimate the global incentive price for new production to be ~US\$60-\$70/lb given the current inflationary environment. It is reasonable to assume that uranium prices could extend beyond this level, however for the basis of our analysis we have assumed a US\$60/lb long term spot price.

### 2. DYL's Merger with VMY creates pathway to multi-asset status

- Following the merger with VMY in Aug-22, DYL now controls two sufficiently advanced projects, the Tumas Uranium Project (TUP) in Namibia and the Mulga Rock Project (MRP) in Western Australia, which we estimate could deliver production in calendar year 2025 and 2026 respectively.
- We estimate a risked NPV<sup>10%</sup> for TUP of A\$428 million (risk discount 20%, un-risked \$535 million). Our analysis is based off DYL reaching a final investment decision (FID) around 3QFY24, an 18-month construction timeframe and first production around the end of CY 2025.
- Similarly, we estimate a risked NPV<sup>10%</sup> for MRP of A\$287 million (risk discount 25%, un-risked \$382 million). Our analysis is based off DYL reaching FID around 1QFY25, an 18-month construction timeframe and first production around the middle of CY 2026.
- DYL are expected to deliver results from a definitive feasibility study (DFS) on TUP by the end of CY2022 and are planning on initiating a revised DFS for MRP in the near future.

### 3. Upside potential through M&A and exploration

- DYL have stated a long-term production target between 5-10mlbpa U<sub>3</sub>O<sub>8</sub> to be achieved via organic (exploration + production at TUP & MRP) and in-organic (M&A) growth.
- The near term focus we believe will be on exploration growth, of which DYL has two sufficiently advanced projects, Omahola and Alligator Rivers.
- Omahola currently has a 125mlb Mineral Resource estimate (MRE) and is located adjacent to existing mines in Namibia. DYL have just concluded a drill

program at Omahola, with results expected to be released to the market over the coming months.

- Alligator Rivers is a Greenfields development in the Northern Territory, with a high grade 26mmb MRE. DYL have concluded a drill program initiated by VMY, which will support a regional study over the summer. DYL are targeting a maiden resource at Alligator within the next five years.

#### **4. Experienced team to deliver corporate strategy**

- Management has a strong track record of developing mining projects from exploration through to production, led by the founder of Paladin Energy (PDN – Speculative Buy \$1.05/sh) John Borshoff. We believe DYL has the necessary experience from a uranium markets perspective and a capital markets perspective.
- The corporate strategy focuses on developing the two projects, TUP & MRP, into production at a point in time when DYL suspects market tightness to be at its peak. Typically, offtake contracts struck under such conditions tend to provide greater margin security and ensure shareholder returns.
- In addition to this, management understands the need to maintain long-term relationships with offtakers, part of which is the ability to provide a stable production stream supported by long asset life.

### **Critical factors**

1. Uranium price outlook
  - a. Our NPV based valuation is highly sensitive to uranium prices. A 10% change in our long-term uranium price forecast causes a +/-23 % change in our base case valuation.
2. Timeline to production – Tumas & Mulga Rock
  - a. We predict Tumas and Mulga Rock will begin production in the Sept-25 and June-26 quarters, respectively. Due to the nature of DCF, the further out cashflows occur the less value is attributed to the current value. Pushing production back by 1 year respectively at TUP & MRP decreases our NPV by 10% and 9% respectively.
  - b. Timing for production is highly dependent upon 1) project funding (debt & equity) and 2) binding offtake supporting the debt portion of project funding. DYL is yet to engage binding offtake, and we don't suspect them to for some time. Delays to or hold ups in relation to project costs and funding will impact our NPV for both TUP and MRP.
3. Cost of construction & operating margin
  - a. Given recent revisions to capital estimates in the mining sector, we see the risk of materially higher capital costs impacting project NPV's as a critical factor in our analysis for DYL. A 10% change in capital costs for TUP and MRP respectively decreases our valuation by 7% and 5%.

# Valuation & recommendation

## Recommendation

We initiate on DYL with a **Speculative Buy recommendation and a \$1.05/sh valuation**. Our recommendation is based on 1) a supportive uranium contracting market underpinning a supportive contracting environment, 2) successful development and commissioning of Tumas in CY25 and Mulga rock in CY26. Our thesis (outlined above) is highly dependent upon nuclear power adoption, and thus under the conditions of our reporting structure, DYL is classified as a speculative investment.

## Valuation

We value DYL via a sum-of-the-parts analysis. We have valued the TUP and MRP via a discounted cash flow (DCF) approach to expected future cashflow, and then applied risk discount's due to the varying stages of development. The risk discount applied aims to capture the inherent riskiness of pre-production assets. We then include an estimate for exploration assets currently in the portfolio applying a similar method in discounting these projects due to their level of riskiness.

**Table 1 - DYL sum-of-the-parts valuation**

Ordinary Shares (basic)	m	732
Options in the money	m	0.9
<b>Diluted</b>	<b>m</b>	<b>732</b>
<b>Sum-of-the-parts</b>	<b>A\$m</b>	<b>A\$/sh</b>
Tumas (NPV 10%, 20% risk discount)	428	0.59
Mulga Rock (NPV 10%, 25% risk discount)	287	0.39
Other exploration	111	0.15
Corporate overheads	(125)	(0.17)
<b>Subtotal</b>	<b>702</b>	<b>0.96</b>
Equity Investments	0	0.00
Net cash (debt)	65	0.09
<b>Total undiluted</b>	<b>767</b>	<b>1.05</b>
Cash from options	0	0.00
<b>Total diluted</b>	<b>767</b>	<b>1.05</b>

SOURCE: BELL POTTER SECURITIES ESTIMATES

## Business catalysts

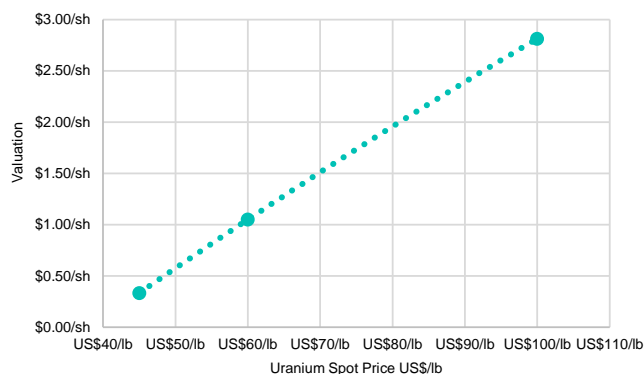
- Completion of Tumas DFS – End CY 2022
  1. Final investment decision BPe Mar 2024
  2. Project offtake
  3. Project financing
- Commencement of Mulga Rock DFS
- Exploration program
  1. Alligator river exploration drilling – Oct 2022
  2. Omahola drilling and exploration – Sept 2022
- M&A activity - ongoing

## Sensitivity to Uranium prices

**Figure 1 - NPV sensitivity table**

	Low	Base	High
<b>U3O8 spot price</b>	<b>US\$45/lb</b>	<b>US\$60/lb</b>	<b>US\$100/lb</b>
<b>Tumas</b>	124	<b>428</b>	1,240
<b>Mulga Rock</b>	69	<b>287</b>	868
Other/ Corporate	-14	-14	-14
EV (risked)	180	702	2,094
Net debt/(cash)	65	65	65
<b>Equity value</b>	<b>\$244m</b>	<b>\$767m</b>	<b>\$2,061m</b>
Diluted shares on issue	732m		
<b>Equity value (diluted) \$/sh</b>	<b>\$0.33/sh</b>	<b>\$1.05/sh</b>	<b>\$2.81/sh</b>
Share price	\$0.78/sh		
Uplift	-57%	35%	261%

SOURCE: BELL POTTER SECURITIES ESTIMATES

**Figure 2 - NPV sensitivity graph**


SOURCE: BELL POTTER SECURITIES ESTIMATES

## Comparative analysis

**Table 2 - ASX Uranium peers**

Company	Mkt Cap (A\$m)	Main project	Location	Project stage	C1 OPEX (US\$/lb)	CAPEX (US\$m)	Resource (Mt)	Grade (ppm U3O8)	U3O8 (Mlbs)	EV/Resource (A\$/lb)
Paladin Energy (PDN)	2,308	Langer Heinrich	Namibia	Restarting	27	118	167	448	356	5.77
Boss Energy (BOE)	896	Honeymoon	South Australia	Restarting	18	81	52	620	72	10.66
<b>Deep Yellow Limited (DYL)</b>	<b>571</b>	<b>Tumas, Mulga Lake</b>	<b>Namibia, WA</b>	<b>DFS in progress</b>	<b>30</b>	<b>340</b>	<b>643</b>	<b>233</b>	<b>389</b>	<b>1.24</b>
Bannerman Resources Limited (BMN)	287	Etango	Namibia	DFS in progress	39	274	429	220	208	1.13
Lotus Resources Limited (LOT)	278	Kayelekera	Malawi	DFS in progress	33	50	43	500	46	5.42
Alligator Energy Limited (AGE)	168	Samphire, SA	South Australia	Scoping in progress	na	na	95	230	47	3.03
Peninsula Energy Limited (PEN)	160	Lance	Wyoming, USA	Pre-construction	20	291	51	480	54	3.12
Berkeley Resources Limited (BKY)	116	Salamanca	Spain	PFS completed	25	170	65	427	62	1.56
Toro Energy Ltd (TOE)	66	Lake Maitland	Wiluna, WA	Scoping in progress	31	200	79	482	84	0.76
92 Energy Limited (92E)	39	Gemini	Canada	Exploration	na	na	na	na	na	na
Okapi Resources Limited (OKR)	32	Tallahassee	North America	Exploration	na	na	42	540	50	0.62
<b>Minimum</b>								<b>220</b>		<b>0.62</b>
<b>Weighted average</b>								<b>423</b>		<b>5.42</b>
<b>Maximum</b>								<b>620</b>		<b>10.66</b>

SOURCE: BELL POTTER SECURITIES ESTIMATES

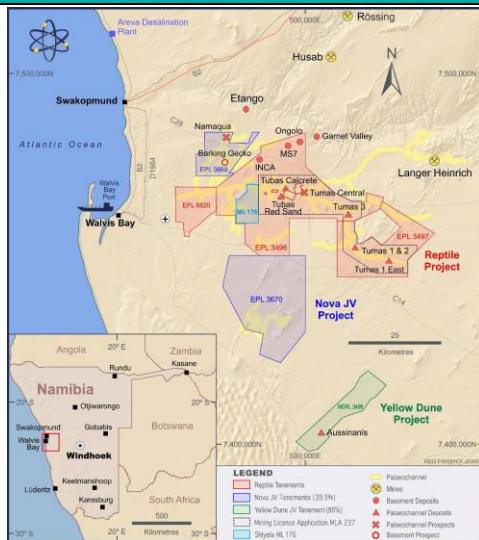
Post the merger with VMY DYL trades at a 77% discount to current comparable ASX uranium companies on an Enterprise Value/ lb of resource basis (EV\$/lb resource).

# Tumas Uranium Project

## Tumas (100%) overview

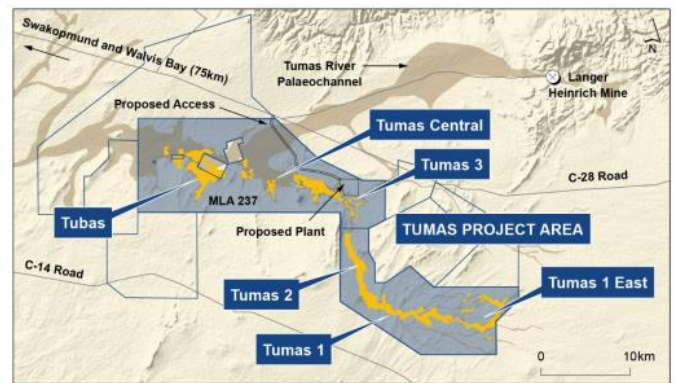
The Tumas Uranium Project (TUP) is a uranium development located in Namibia and 100% owned by DYL. Since 2016, DYL has quadrupled the Mineral Reserve to 68.4 mlbs. DYL expect to release a definitive feasibility study (DFS) on TUP in the Dec Q22, building on the preliminary feasibility study (PFS) conducted in Feb-21. TUP sits along the TUP River Paleochannel, roughly 30kms west of Paladin Energy Ltds (PDN Buy, speculative \$1.05/sh) existing Langer Heinrich Mine. DYL estimate that only 60% of the predicted 125kms of strike length along the paleochannel has been tested to date, providing scope for further resource expansion and development.

Figure 3 - Tumas project location



SOURCE: COMPANY DATA

Figure 4 - Tumas project area



SOURCE: COMPANY DATA

## Bell Potter Project Estimates

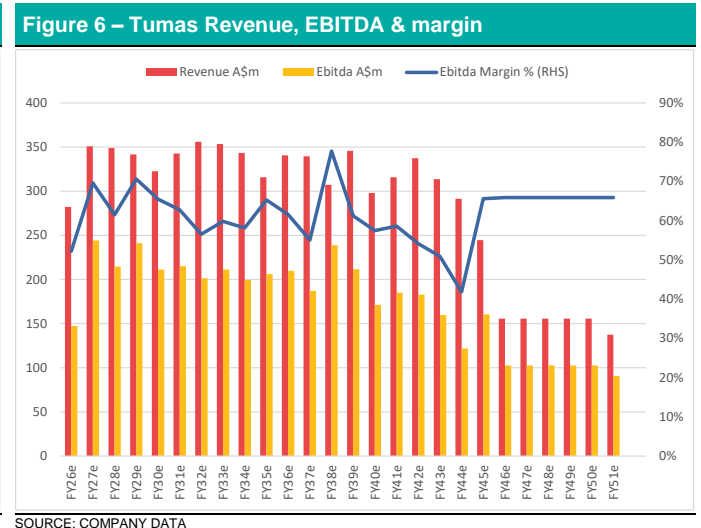
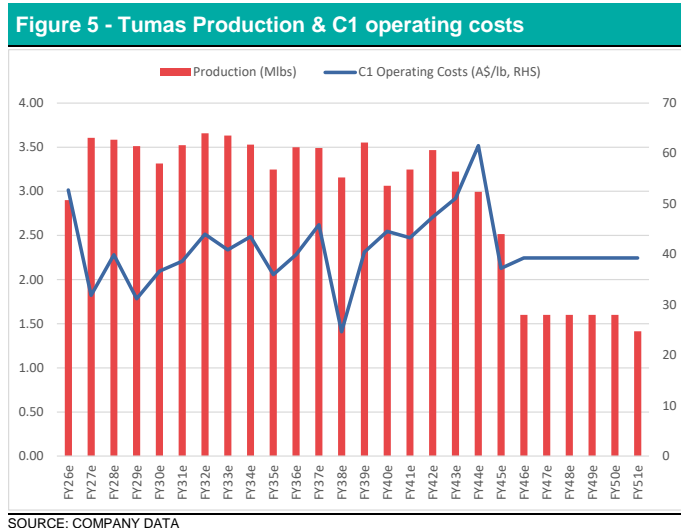
Our base case assumptions for TUP have been provided below and are largely in-line with the initial PFS completed by DYL, updated for the expanded Mineral Reserve. Our analysis concluded an NPV<sup>10%</sup> risked at 80% of A\$428m, LOM C1 costs of A\$39.5/lb and AISC (including vanadium by-product credits) of A\$41.4/lb. Our mine life of 26 years is in-line with DYL's updated estimates.

Table 3 - Tumas project parameters - BPe

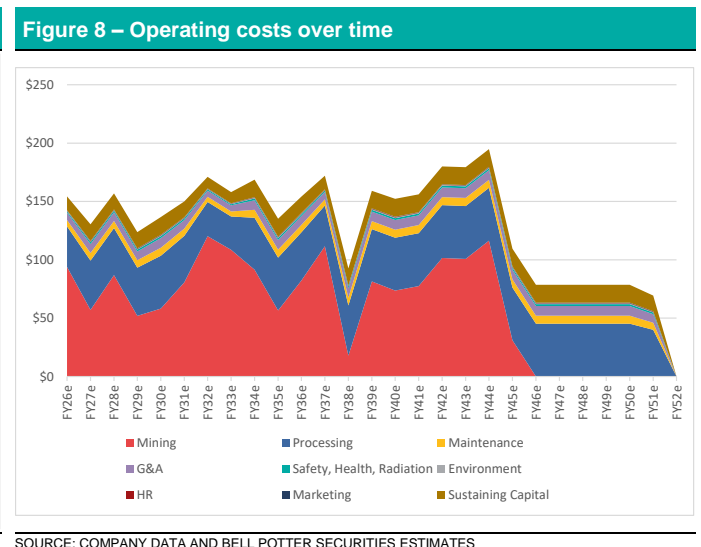
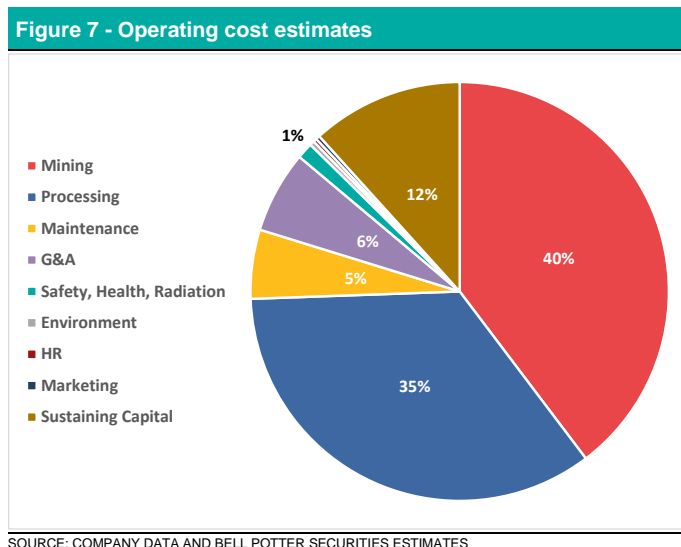
	Unit	BPe
Life of Mine	Years	26 years
Average annual production	mlbpa	2.8mlbpa
Average grade	ppm	240ppm
C1 operating costs	A\$/lb	\$39.46
AISC (inc Vanadium credits)	A\$/lb	\$41.36
Project Capex	A\$m	476
NPV unrisked 10%	A\$m	536
NPV risked @ 80%	A\$m	428

SOURCE: BELL POTTER SECURITIES ESTIMATES





Our base case scenario assumes an average production rate of 2.8mlb pa, which fluctuates between 3 and 3.5mlb pa for the first 18 years, before declining to 1.5mlb pa as DYL processes low-grade stockpiles. DYL are confident in conversion of resources to reserves which could delay the low-grade stockpile processing phase (Y19 onwards), thus increasing production at TUP via an extension of the mine life. Costs (on a per lb basis) peak towards the end of the mining phase (est Y19-Y22) which coincides with a decline in grade and production. We suspect in the upcoming DFS these assumptions may change as greater clarity around the mining schedule is provided. Over the LOM we estimate EBITDA margins around 62%.



Our cost estimates are derived from the refreshed DFS produced by DYL on a per/tonne of ore basis, and then adjusted utilising our inferred mining and production schedule. We view the estimated C1 operating costs of A\$39.5/lb (US\$29.2/lb) as being in-line with similar operations, (PDN est US\$27/lb ~ A\$38/lb) and DYL’s own assessment in Feb-21 (US\$30.7/lb). We have not adjusted the capital cost at this point in time. With the DFS due for release at the end of Dec-Q22 we suspect the business will update the market with capital adjustments at that point.



**Mineral Reserves**

TUP has a current Ore Reserve estimate of 68.4Mlbs at an average grade of 345ppm. In the Oct-21 DFS refresh, DYL upgraded the mineral reserve from 31mlbs (+121%).

**Table 4 - Tumas Ore Reserve Estimate**

	Tonnage - Mt	Average grade	Contained Metal Kt U3O8	Contained Metal Mlbs U3O8
Tumas 1&2	14.5	272	3.9	8.9
Tumas 1 East	29.5	267	7.9	17.4
Tumas 3	46.3	412	19.1	42.1
<b>Total</b>	<b>89.9</b>	<b>345</b>	<b>30.9</b>	<b>68.4</b>

SOURCE: COMPANY DATA

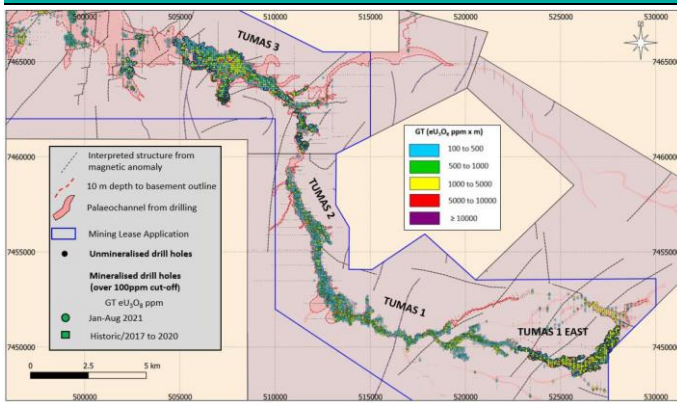
**Project catalysts**

- DFS – Dec 2022 Quarter
- BPe FID – Mar-24
- BPe Construction Apr-24 to Sept-25 (18m)
- BPe Production Sept/Dec Q-25

**Asset background**

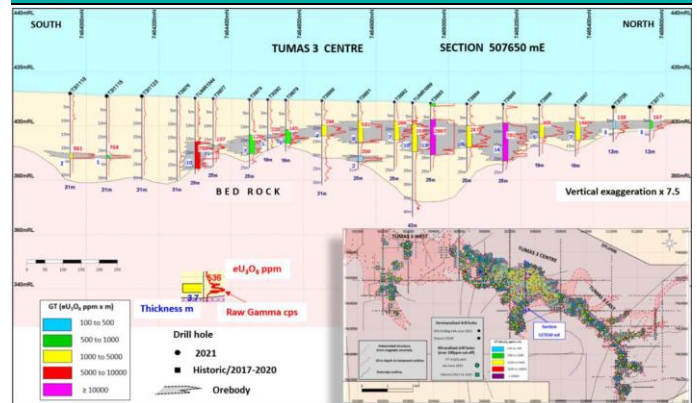
**Geology:** The uranium mineralisation at TUP is hosted in paleochannels, with uranium-rich outcropping and sub-cropping granites as the possible source rock for the Tumas uranium deposit. The ore reserve estimate is split across 3 main deposits (Tumas 1&2, 1 East, & 3). Mineralisation occurs between 15-20m depth at Tumas 1 with widths up to 200m.

**Figure 9 - Tumas project Paleochannel locations**



SOURCE: COMPANY DATA

**Figure 10 - Tumas 3 cross section**



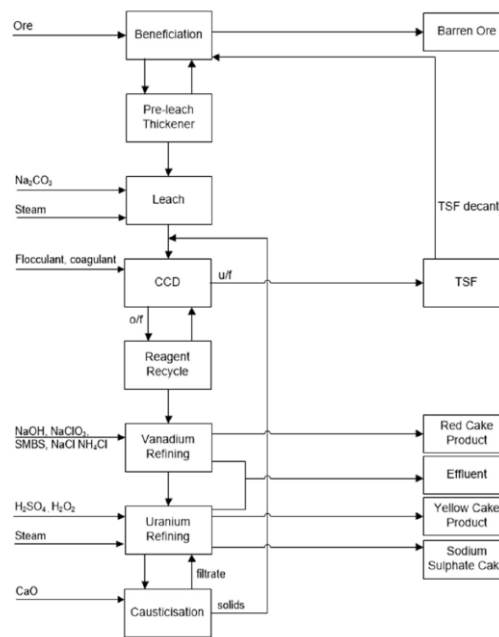
SOURCE: COMPANY DATA

**Mineral resource:** The Mineral Resource estimate at TUP is 196.4Mt at an average grade of 263ppm U<sub>3</sub>O<sub>8</sub> for a total MRE of 114Mlbs. 69% of the MRE is in indicated status, with the remaining 31% inferred.

**Mining method:** The proposed mining method at TUP is open-pit, utilising conventional excavator and truck fleets.

**Processing method:** The processing plant receives run-of-mine ore for treatment to produce uranium and vanadium products (yellowcake and red cake respectively). The processing plant is segregated into four distinct stages; 1) beneficiation, 2) leaching and counter current decantation, 3) Uranium and vanadium refining and 4) product finishing

**Figure 11 - Tumas processing block flow diagram**



**Figure 4.** Process plant block flow diagram.

SOURCE: COMPANY DATA

**Infrastructure:** As the TUP is a greenfield development, there is limited infrastructure currently installed. Required utilities (telecommunications, power and water) are available from established government utilities. The Walvis Bay port, located 80km WNW from TUP has been exporting yellowcake since the 70's. In the original PFS, DYL noted intentions to connect to the NamPower grid which runs 10km from the proposed processing plant. A 12.5km all-weather access road to site will need to be constructed. Air transport is available through Walvis Bay.

**Permitting:** The mining licences application for TUP was submitted in July 2021 and is subject to the completion of the Environmental Impact Assessment (EIA). The EIA is nearing completion with an expected completion timeframe for March 2023.

**Operating conditions:** The TUP is located in Namibia, a well-known and established uranium mining jurisdiction with Rossing, Husab, Langer Heinrich and Etango projects all in close proximity to the project. Namibia has an established Mining Act, with mining contributing to around 10% of GDP. Royalty taxes are levied at 3% of US\$ revenues less shipping and packaging costs, in addition to export levies of 0.25% on US\$ revenues.

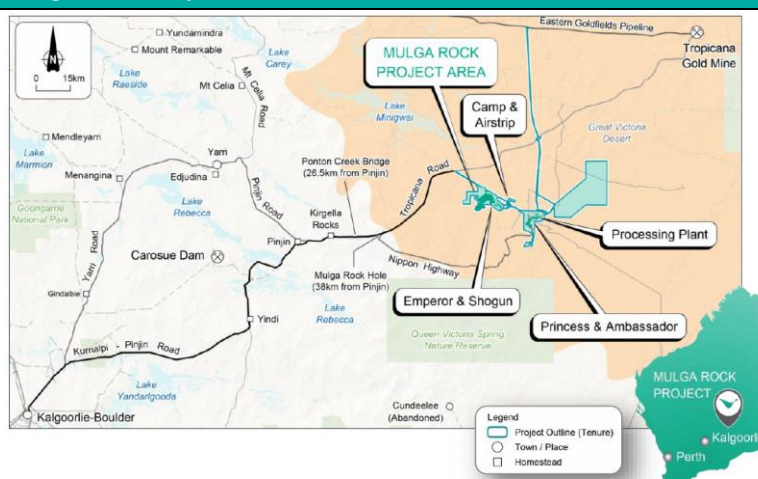
**Project funding:** The timing and strength of the project provides DYL with multiple avenues of funding, in our opinion. We suspect the final structure will contain a portion of debt which will be backed by long-term uranium offtake. As there are several milestones prior to reaching a final investment decision we have assumed a standard 50/50 debt/equity funding strategy at current prices in our analysis for a total capital raise of A\$476 million.

# Mulga Rock

## Overview

The Mulga Rock project (MRP) was acquired through the Merger of DYL and VMY in Aug-22. MRP comprises of a 71.2 Mt Mineral Resource grading at 570ppm U<sub>3</sub>O<sub>8</sub> for a total of 90.1mlbs (M+I+I) and a 22.7 Mt Ore Reserve Estimate (ORE) grading at 845ppm U<sub>3</sub>O<sub>8</sub> for a total of 42.3Mlbs. In 2018, VMY published a definitive feasibility study (DFS) for the MRP which was subsequently refreshed in 2020. The 2020 DFS refresh saw a 20% reduction in the capital estimate and an 8% reduction in life of mine (LOM) operating costs. We have used the refreshed DFS in guiding our assessment for MRP. DYL plan to review the DFS work conducted by VMY, specifically in relation to base metal potential.

Figure 12 - Mulga Rock - Project location



SOURCE: COMPANY DATA

## Catalysts & work programs

- Revised DFS - review DFS results and potential for base metals extraction.

## MRP – Key parameters & financials

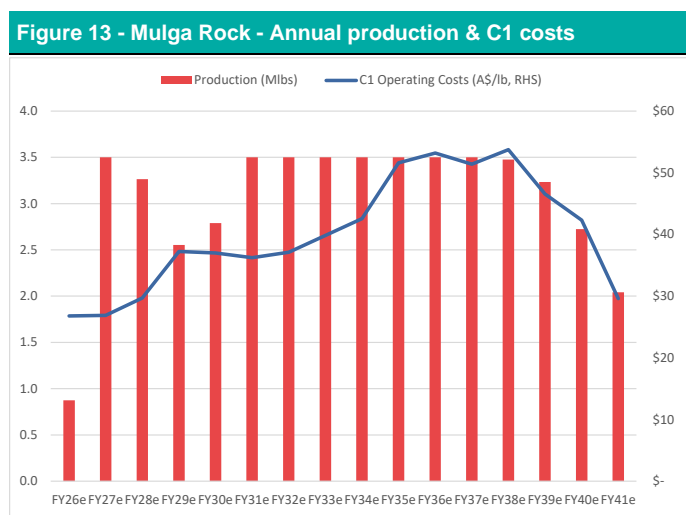
Our estimates underpinning our economic assessment of the MRP are provided below.

Table 5 - Mulga Rock Project key parameters

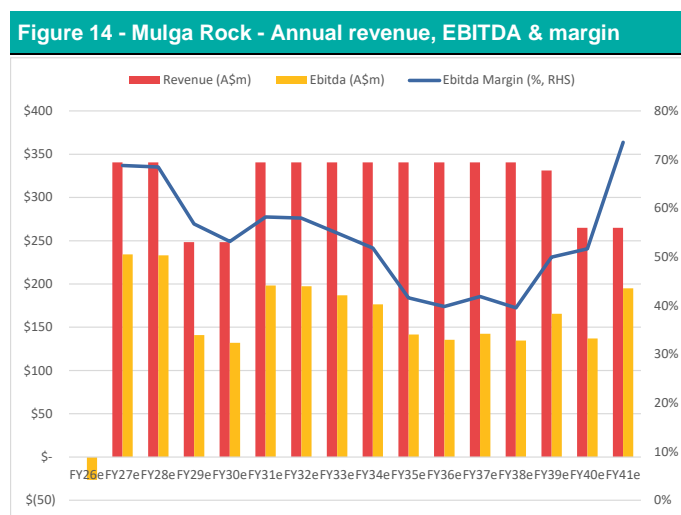
Mulga Rock project	Unit	VMY DFS 2018	VMY DFS 2020	BPe
Life of Mine	Years	15	15	15
Average annual production	mlbpa			3.1
Total production	mlbs	47	47	49
Average grade	ppm			803
C1 operating costs	A\$/lb	39.93	40.03	40.11
AISC	A\$/lb	48.57	48.03	45.70
Project Capex	A\$m	493	393	393
NPV Pre-tax 8%	A\$m	530	605	-
NPV unrisksd 10%	A\$m			383
NPV risksd @ 75%	A\$m			287

SOURCE: COMPANY DATA AND BELL POTTER SECURITIES ESTIMATES

Our analysis differs slightly on LOM costs, primarily due to a difference in exchange rates, we have utilized a long-term AUD/USD rate of \$0.74 whereas VMY used \$0.65. It's worth noting we are utilising a higher uranium price over LOM (VMY utilised a US\$55/lb LOM price), please refer to our discussion on uranium market dynamics below. Our un-risked post-tax NPV<sup>10%</sup> of A\$383 million compares to VMY's pre-tax NPV<sup>8%</sup> assessment of A\$605 million. If we run our valuation through utilising a US\$45/lb uranium price, our un-risked post-tax NPV<sup>10%</sup> drops to A\$92 million.



SOURCE: BELL POTTER SECURITIES ESTIMATES



SOURCE: BELL POTTER SECURITIES ESTIMATES

We have utilised the ore processing schedule outlined in the 2018 PFS. This sees production decline between FY27 and FY29 after the initial high-grade material is processed, before climbing to nameplate in FY31 as greater volumes are processed (see Figure 20). We suspect DYL will focus on optimising the MRP asset, particularly with regards to plant throughput, mine-life and the strip ratio in the initial years, when they conduct the revised DFS.

### Asset background

The MRP was initially discovered in the 70's by the Power Nuclear Corporation (PNC - a Japanese state-owned entity). After the Asian financial crisis, PNC sold the project to Eaglefield Holdings who subsequently sold the project to VMY upon listing in 2008. An initial scoping study was conducted in 2015, assessing a 3Mlba/pa project over 16 years. In 2015, AMC conducted a pre-feasibility study (PFS) which substantially reduced waste/ore strip ratio via upgrades in beneficiation techniques applied. In early 2018 VMY released a DFS, followed by a refreshed DFS in Aug-20, for which a lot of our analysis is based off. The MRP has a granted mining lease, which was issued under the previous Liberal State government, and is the only uranium project in Western Australia with approval to mine.

## Geology & mineralisation

The uranium mineralisation at MRP is hosted in a flat lying carbonaceous sedimentary deposit, under approximately 38 meters of overburden. Being that the uranium is hosted in lighter carbonaceous material bodes well for gravity separation from the heavier surrounding silica sands. The deposit was discovered blindly via explorational drilling in the 1970's, due to the overburden the deposit showed no signs of radiometric or chemical signature at surface. The majority of the uranium mineralisation is contained in the top mineralised lens, with ore zones up to 38 meters thick. Mineralisation at Ambassador and Princess is polymetallic, however VMY noted in their original DFS that the concentrations of mineralisation were not sufficient to support a mineral resource estimate at the time. DYL plan to revisit this in their reviewed DFS.

## Metallurgy & Processing

The geological structure of the deposit leads to a simple and well-known metallurgical extraction process. Under the DFS, VMY adopted for a resin-in-pulp (RIP) process circuit with an ion-exchange resin to correct for preg-robbing in the solution. They estimated at the time recoveries through RIP exceeded 90%. The RIP process produced a uranyl sulphate loaded resin which is then washed and eluted utilising sodium chloride before concentration via ultra-filtration/nano-filtration to strip out water and sodium chloride (which is recycled to the elution circuit). Finally, the product is precipitated from solution using hydrogen peroxide, to produce yellowcake which is then filtered, dried, and packed to be transported to Adelaide for export. VMY estimated up to 9-10 sea containers of yellowcake would be produced for shipment each month. VMY conducted pilot plant testwork during their ownership of the asset, with a proven overall recovery of 87.3%. Prior to the Merger with DYL, VMY were conducting further testwork with ANSTO on the possibility of utilising a specialised resin which could lower operating and capital costs for the project.

## Resources & Reserves

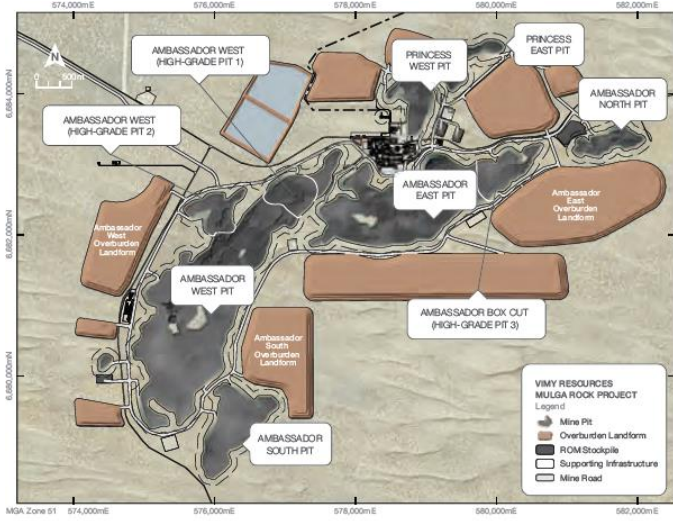
The MRP has a current Mineral Resource estimate (MRE) of 90.4Mlbs at an average grade of 574ppm  $U_3O_8$ . 14% of the MRE is classified as measured, 36% indicated and 50% inferred. The MRP has an Ore Reserve estimate (ORE) of 42.3Mlbs at an average grade of 846ppm  $U_3O_8$ . 29% of the ORE is classified as Proved and the remaining 71% as Probable.

## Exploration

We haven't considered exploration upside at this point in time, because of the comparatively longer lead time to first production due to the onerous legislative regime impacting uranium mining in Western Australia. The MRP received approval under the former Liberal government, which, the current Labour government has acknowledged, however has opposed extending any such licences for new uranium mining/ processing operations.

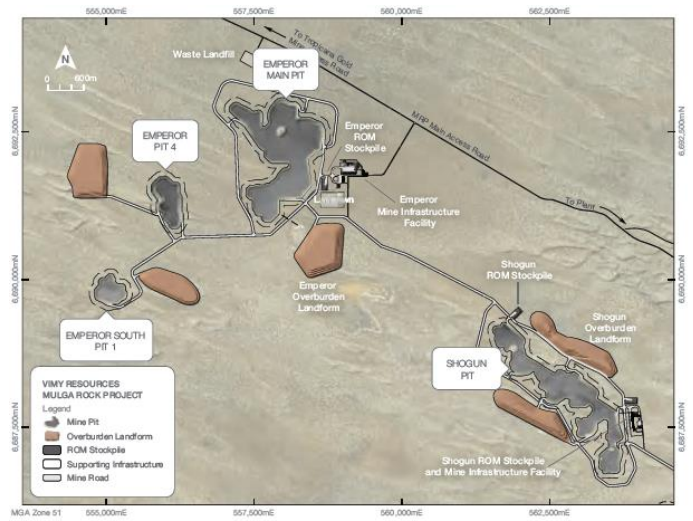


Figure 15 - Mulga Rock East mining centre layout



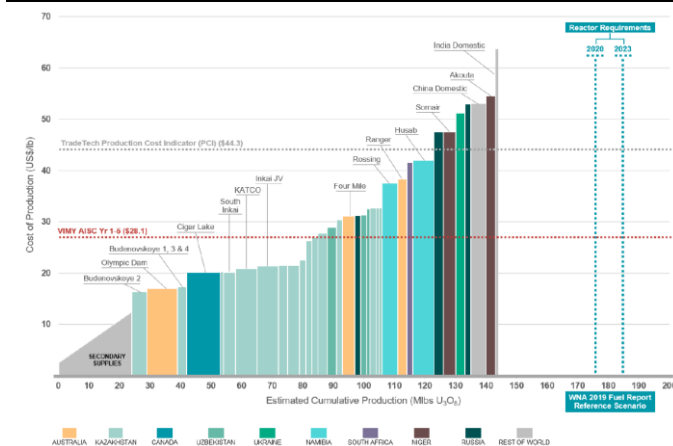
SOURCE: COMPANY DATA

Figure 16 - Mulga Rock West mining centre layout



SOURCE: COMPANY DATA

Figure 17 - Uranium cost curve



SOURCE: COMPANY DATA

Figure 18 - Mulga Rock indicative timeline

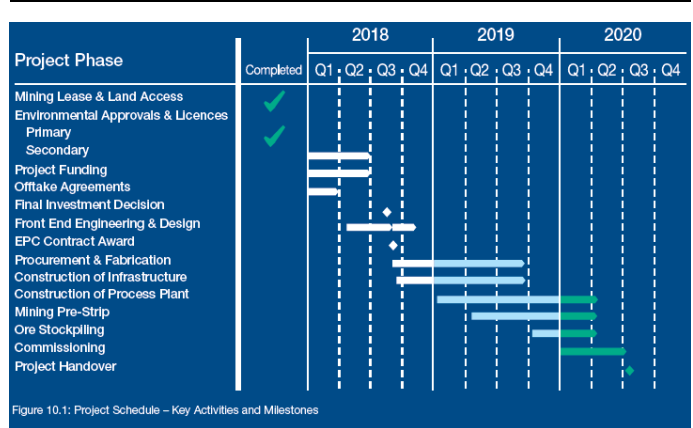


Figure 10.1: Project Schedule – Key Activities and Milestones

SOURCE: COMPANY DATA

Figure 19 - MRP - Material moved

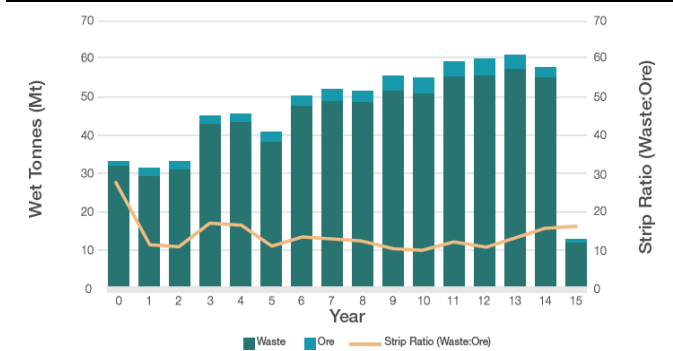
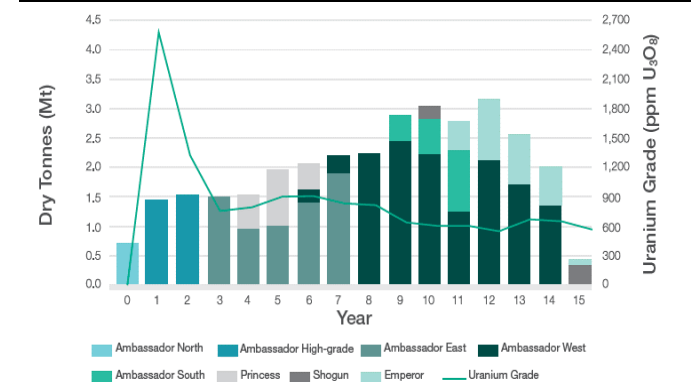


Figure 6.9: Total Material Movements for Mining Operation

SOURCE: COMPANY DATA

Figure 20 - MRP - processed material & grade



SOURCE: COMPANY DATA

# Exploration portfolio

## Namibia:

- **Omahola (100%)** – The Omahola Project consists of three key deposits, Ongolo, MS7 and Inca which collectively contain 125.3 Mlb U<sub>3</sub>O<sub>8</sub> at an average grade of 190ppm (M+I+I MRE). The deposits are located in the “Alaskite Alley” corridor which is home to deposits including Rossing, Husab & Etango. Forward work plans for Omahola include a 10,000m drill program over FY23 which includes deeper RC extensional drilling over previously identified anomalies and extending shallow RC drilling over prospective targets.
- **Nova JV (NJV) (39.5%)** – The NJV was initiated in 2016 between Reptile (A subsidiary of DYL) and JOGMEC (an agency of the Japanese Government) who funded \$4.5 million in exploration expenditure over 4 years to earn-in to a 39.5% interest in the project. Other participants in the project include Nova Energy Africa (a subsidiary of Toro Energy (TOE not rated) 15%) and Sixzone Investments (part of the Namibian government – 6% free carry).
- The business has several other Namibian exploration projects, at this point in time we do not believe these projects to be material to the value of the business.

## Australia:

- **Alligator River Project (100%)** – DYL acquired the Alligator River Project (ARP) in the merger with VMY. The project consists of 3,895km<sup>2</sup> of tenements in the highly prospective Alligator River region in Australia’s Northern Territory. Nearby deposits include Jabiluka, Ranger and Nabarlek.

## Exploration valuation attribution

**Table 6 - DYL exploration valuation attribution**

Project	Mlbs	Margin - A\$/lb	Probability of success	A\$m value
Omahola	125.3	15	3%	\$56
Nova JV				\$5
Alligator Rivers				\$50
<b>Total</b>				<b>\$111</b>

SOURCE: COMPANY DATA AND BELL POTTER SECURITIES ESTIMATES

We have taken a blended approach to valuing the exploration portfolio for DYL. In the case of Omahola, where an established resource is recorded, we have taken an assumed production margin (A\$15/lb) and applied a probability of success of 5% given the early stage of the project. For Nova, we have taken the projected spend from the JV partner JOGMEC to arrive at a notional value. For Alligator Rivers, we have assessed the market capitalisation for businesses with similar projects in the region.



# Uranium & Nuclear

## Tailwinds build on 2021

Our views in this initiation are supported by underlying fundamental tailwinds inclusive of **1)** a growing demand for nuclear energy driven by decarbonisation goals and energy security requirements and **2)** a lack of investment in uranium supply over the last decade due to sustained low price environment. We see these factors supporting a long-term spot price of ~US\$60/lb with a return to historical market conditions for long-term offtake contracts trading at a ~20% premium to spot markets.

We estimate a ~37Mlb annual deficit in 2022, expanding to ~56mlbs by the end of the decade unless restarts and additional capacity are brought into production. Out to 2050, the International Energy Agencies (IEA) net-zero scenario estimates nuclear power generation capacity to grow from ~433Gw to over 800Gw. This expansion assumes an additional 201mlbs of uranium supply per year will be required by 2050 and a rough doubling of the nuclear reactor fleet to ~800 operating reactors.

China continues to be the main growth driver for new reactor builds (22 under construction, 38 planned and 160 proposed).

Whilst difficult to quantify, the tone around nuclear energy has changed in most countries. Evidence of this includes:

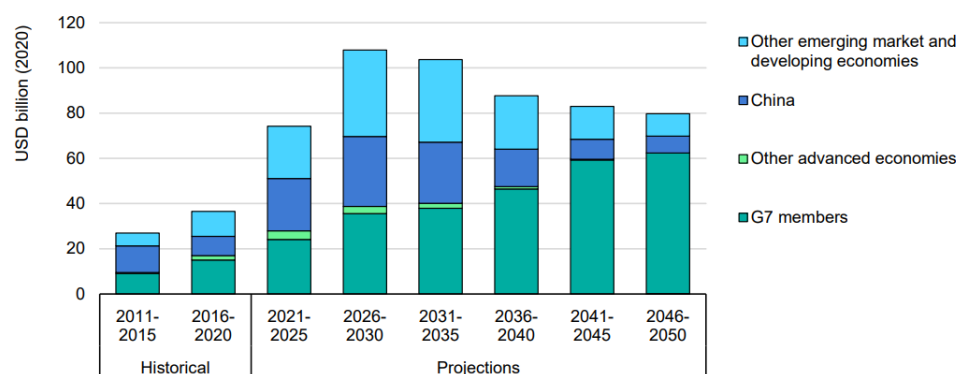
- **Jul 2022** - The EU taxonomy decision to support nuclear energy as a “sustainable” source of electricity thus gaining access to discounted financing solutions from Jan-23 onwards. (Source: <https://www.europarl.europa.eu/news/en/press-room/20220701IPR34365/taxonomy-meps-do-not-object-to-inclusion-of-gas-and-nuclear-activities>)
- **Aug 2022** – Japan plans to expand nuclear reactor fleet and pushes to accelerate restarts of idled reactors for winter. Extensions to reactor operating lives (from 40 years up to 60 years) (Source: <https://www.world-nuclear-news.org/Articles/Kishida-calls-for-Japanese-expansion-of-nuclear-en>)
- **Sept 2022** - South Korean long-term energy plan could see nuclear contribution grow to one third of the country’s total energy mix by the end of 2030 as recently elected President Yoon Suk-yeol reverses the phasing out of nuclear pursued under the prior government. (Source: <https://www.world-nuclear-news.org/Articles/Draft-Korean-energy-policy-reflects-expansion-of-n>)
- **May 2022** - Finland Greens party backflipped on traditional views in support of nuclear as a low carbon source of reliable energy. (Source: <https://allianceforscience.cornell.edu/blog/2022/05/finland-green-party-nuclear/>)
- **Sept 2022** - Germany’s decision to extend the life of Isar 2 and Neckarwestheim 2 beyond the planned shutdown date (31 December 22). Whilst this is a short term initiative it does go against decades of anti-nuclear sentiment in German policy.
- **Nov 2021** - UK Government provided £210 million in funding to Rolls Royce (matched by private sector funding of £250 million) for the development of advanced nuclear technology including small-modular reactors. (Source: <https://www.gov.uk/government/news/uk-backs-new-small-nuclear-technology-with-210-million>)

**“IEA – Net Zero difficult without Nuclear”**

- **The IEA predict nuclear capacity will need to more than double to over 800GW from the current level of 413GW** driven by uptake in emerging and developing economies. This equates roughly to a nuclear reactor fleet of +800 reactors. We estimate this will increase U<sub>3</sub>O<sub>8</sub> demand by ~200 million pounds annually (an increase of 125%) equating to an annual addition of 7.2Mlbs per annum out to 2050.
- **Less nuclear power would make net zero ambitions harder and more expensive** – a reduction of nuclear’s share of the global energy make up from 10% in 2020 to 3% in 2050 would require greater volumes of solar and wind to fill the void, which in turn requires greater storage capacity. The IEA estimates this would cost an extra US\$500 billion and add US\$20 billion to consumer electricity bills annually.
- **The nuclear industry needs to clean up its act and deliver new projects on time and on budget.** The capital cost for new reactors needs to reduce to US\$5,000/kW by 2030 from current levels of US\$9,000/kW currently. To achieve this, stable regulatory framework and efficiencies around planning and construction will be required.
- **Small Modular Reactors (SMR) could play a critical role in nuclear generation,** provided investment and government support is provided now. SMR offers several benefits to traditional large-scale reactors, specifically, they are inherently lower risk, have lower capital costs and can be produced more efficiently. A number of countries have flagged their support for SMR technology, however only a handful are currently due to begin operation this decade.
- Average annual nuclear power investment is projected to almost double in the 2021-2025 period from the 2016-2020 period. By the time we tick over to the later half of the decade, the IEA projects annual investment in nuclear power to be in excess of US\$100 billion, driven by China and emerging market adoption.
- The full document can be found here: <https://iea.blob.core.windows.net/assets/0498c8b8-e17f-4346-9bde-dad2ad4458c4/NuclearPowerandSecureEnergyTransitions.pdf>

**Table 7 – Projected average annual investment in nuclear energy (US\$)**

**Global average annual nuclear power investment by country/regional grouping in the Net Zero Emissions by 2050 Scenario**



IEA. All rights reserved.

Sources: IEA (2021), [Net Zero by 2050: A Roadmap for the Global Energy Sector](#); IEA (2021), [Achieving Net Zero Electricity Sectors in G7 Members](#); IEA (2021).

SOURCE: IEA,

### Nuclear reactor data

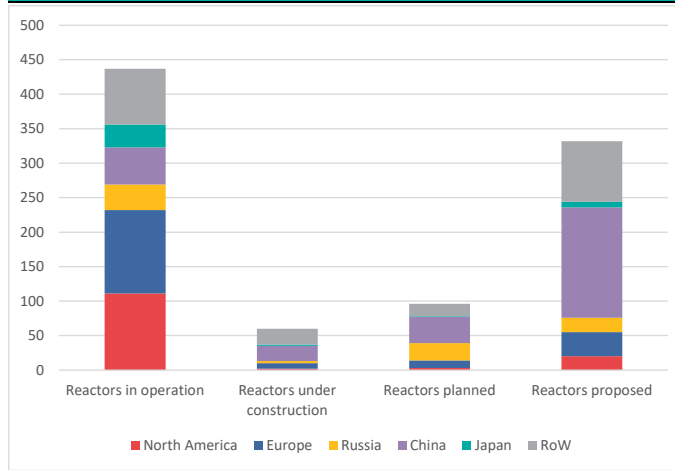
There are currently 437 reactors under operation, 60 under construction, 96 planned and 332 proposed. The operating reactors consume roughly 161mlbs U<sub>3</sub>O<sub>8</sub> annually. Over the last two decades, new reactors connected to the grid have largely replaced retired reactors (108 retired Vs 97 connected between 2002 & 2021).

Table 8 - Global Reactor Data

	Reactors in operation	Reactors under construction	Reactors planned	Reactors proposed
North America	111	2	3	20
South America	7	2	1	9
European Union	104	3	7	18
Western Europe (Ex-EU)	13	2	2	10
Russia	37	3	25	21
Eastern Europe (Ex-Russia)	4	3	2	7
Asia (Ex-China & Japan)	47	13	12	34
China	54	22	38	160
Japan	33	2	1	8
Middle East & Africa	24	8	5	45
RoW	3	0	0	0
	437	60	96	332

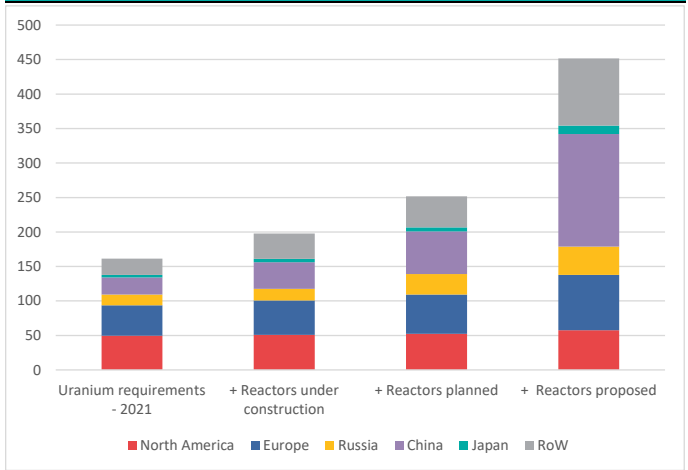
SOURCE: WORLD NUCLEAR ASSOCIATION

Figure 21 - Reactor plans - September 2022



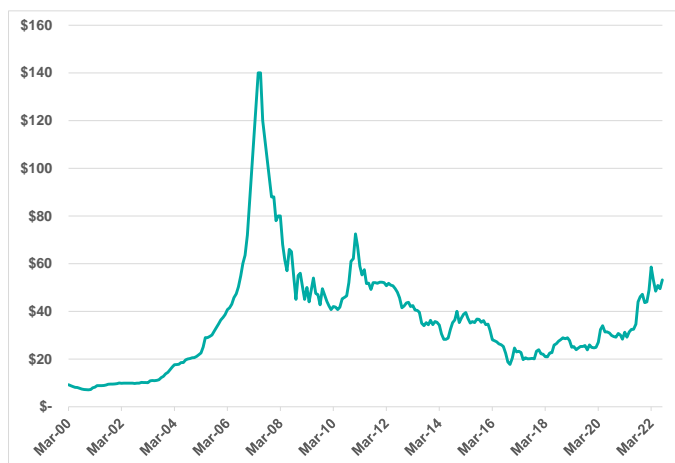
SOURCE: WORLD NUCLEAR ASSOCIATION

Figure 22 - Implied annual consumption (Mlbs U<sub>3</sub>O<sub>8</sub>)



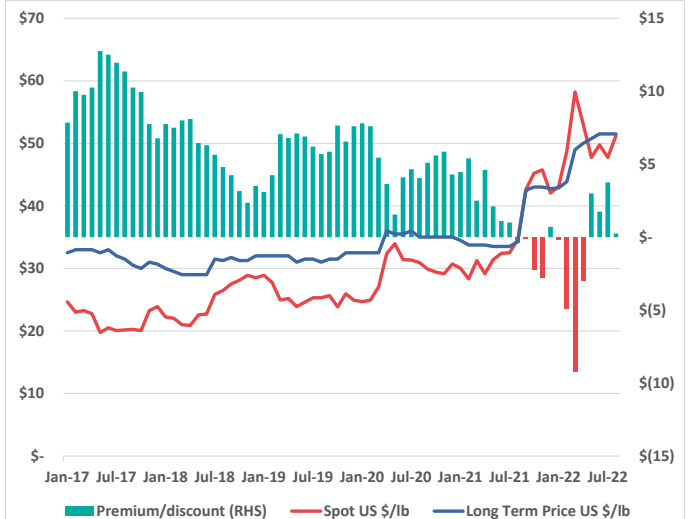
SOURCE: BELL POTTER SECURITIES ESTIMATES

Figure 23 - Uranium spot price - US\$/lb



SOURCE: IRESS

Figure 24 - Uranium long-term contracting price - US\$/lb



SOURCE: CAMECO

# Capital structure & financials

## Merger with Vimy

The merger between DYL and VMY was completed on the 5<sup>th</sup> of August 2022 after being previously announced on the 31<sup>st</sup> of March 2022. Shareholders in VMY received 0.294 new DYL shares in consideration as part of the merger.

## Financials

DYL is a uranium exploration and development company, which is yet to reach first production. The operations of the business are largely dependent upon support from shareholders, equity capital markets and debt financiers. The company currently has no source of its own cash generation or income and, as such, is classified as a speculative investment by Bell Potter Securities.

Recent annual cash flows for DYL are provided below: NOTE\* Cashflow for the 2021 & 2022 years are inclusive of VMY financials.

**Table 9 - Cash flow summary A\$m**

	30 June 2019	30 June 2020	30 June 2021*	30 June 2022*
Payments to suppliers & employees	(2.8)	(2.5)	(2.6)	(2.4)
Payments for mineral exploration	0.0	0.0	0.0	(1.8)
Other	0.4	0.2	0.2	0.5
<b>Net cash flow from operations</b>	<b>(2.4)</b>	<b>(2.3)</b>	<b>(2.4)</b>	<b>(3.7)</b>
Payments for property, plant & equipment	(0.1)	(0.1)	(0.3)	(0.7)
Capitalised exploration expenditure	(2.9)	(3.1)	(3.6)	(7.5)
Other	1.2	1.0	0.0	(0.3)
<b>Net cash flow from investing</b>	<b>(1.9)</b>	<b>(2.2)</b>	<b>(3.9)</b>	<b>(8.6)</b>
Proceeds from share issues	9.0	2.3	48.5	25.1
Other	(0.5)	(0.2)	(2.3)	(0.2)
<b>Net cash flows from financing</b>	<b>8.5</b>	<b>2.1</b>	<b>46.2</b>	<b>24.9</b>
Net increase (decrease) in cash	4.1	(2.4)	39.9	12.5
Cash at beginning	10.7	15.0	12.1	52.4
Net foreign exchange differences	0.1	(0.5)	0.5	(0.0)
<b>Cash at end</b>	<b>14.9</b>	<b>12.1</b>	<b>52.5</b>	<b>64.9</b>

SOURCE: COMPANY DATA

**Future capital requirements:** As DYL is progressing two development opportunities we suspect there will be future capital required to fund these. Our base case assessment has assumed a 50/50 capital raise at both assets. This is likely to change as DYL move towards FID and will likely be determined by underlying market conditions.

## Capital structure

**Table 10 - DYL Capital structure**

	m	732
<b>Shares on issue</b>		
Escrowed shares/ other	m	-
Total shares on issue	m	732
Share price	\$/sh	0.78
<b>Market capitalisation</b>	<b>\$m</b>	<b>571</b>
Net cash	\$m	65
<b>Enterprise value (undiluted)</b>	<b>\$m</b>	<b>506</b>
Options outstanding	m	1
Options in the money	m	1
Issued shares (diluted for options)	m	732
<b>Market capitalisation (diluted)</b>	<b>\$m</b>	<b>567</b>
Net cash + options	\$m	65
<b>Enterprise value (diluted)</b>	<b>\$m</b>	<b>506</b>

SOURCE: COMPANY DATA

## Share register

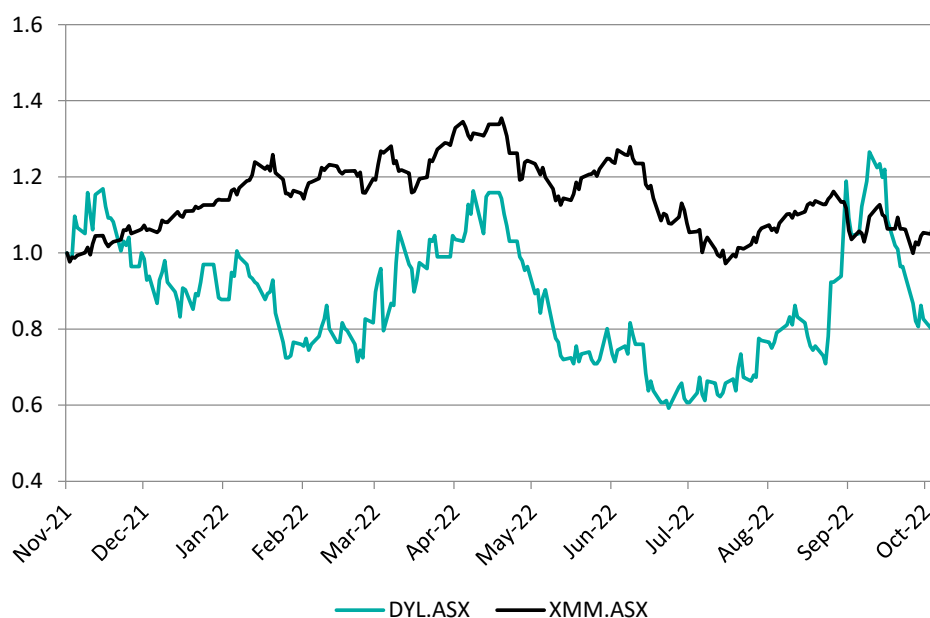
**Table 11 - DYL major shareholders as at Sept-22**

Major shareholders	%	shares
Paradise Investment Management	7.0%	51,136,200
Mirae Asset Management	4.5%	32,708,122
Collines Investments	4.0%	28,942,203
Andrew MacMillan	2.6%	18,963,000
	<b>18.0%</b>	<b>131,749,525</b>

SOURCE: COMPANY DATA

## Stock price performance

**Figure 25 - DYL relative share price performance Vs XMM**



SOURCE: IRESS

# Board and management

**Table 12 - Board & Management**

Name	Position	Appointed to position
<b>Board</b>		
Chris Salisbury	Chairman	2021
Gillian Swaby	Executive Director	2005
Steven Michael	Executive Director	2022
Mervyn Greene	Executive Director	2006
John Borshoff	Managing Director/ CEO	2016
Greg Meyerowitz	Non-Executive Director	2021
Wayne Bramwell	Non-Executive Director	2022
<b>Management</b>		
Mark Pitts	Company Secretary/ CFO	2005
Ursula Loubser	Financial Controller	2008
Andrew Micro	Head of Business Development	2021
Dustin Garrow	Head of Marketing	
Eduard Becker	Head of Exploration	2016
Darryl Butcher	Head of Project Development	2019
Dr Anthony Chamberlain	Project Director - Mulga Rock	2014
Xavier Moreau	Australian Exploration Manager	2010

SOURCE: COMPANY DATA

## Chris Salisbury, BEng, FAICD – Chairman

Mr Salisbury is a highly experienced mining executive, with over 30 years of global experience across senior strategic and operational roles for the Rio Tinto Group. He is a qualified metallurgical engineer and Fellow of the Australian Institute of Company Directors. He brings extensive uranium experience having led operating companies in Australia and in Namibia. He was Chief Executive of Energy Resources Australia (ERA) between 2004 - 2008, a significant global uranium business, and, during his time, an ASX 100 company. Mr Salisbury also served as Non-executive Director of ERA. From 2011-2013 Mr Salisbury was Managing Director/Head of Country for Rio Tinto's Rössing Uranium Mine and was based in Swakopmund Namibia.

## John Borshoff, BSc, FAusIMM, FAICD – Chairman

Mr Borshoff joined the Deep Yellow Board in 2016. He is an experienced mining executive and geologist with more than 30 years of uranium industry experience. He spent more than a decade at the start of his career as a senior geologist and manager of the Australian activities of German uranium miner Uranerz. In 1993, following the withdrawal of Uranerz from Australia, Mr Borshoff founded Paladin Energy Ltd (Paladin). He built that company from a junior explorer into a multi-mine uranium producer with a global asset base and valuation of more than \$5 billion at its peak.

## Gillian Swaby BBus, FCIS, FAICD, AAusIMM - Executive Director

Ms Swaby joined the Deep Yellow Board in 2005 as Non-executive director and became an Executive director in 2016. She is an experienced mining executive with a broad skillset across a range of corporate, finance and governance areas. She has spent more than 35 years working with natural resources companies in numerous roles including Chief Financial Officer, Company Secretary, Director and corporate advisor. Ms Swaby worked at Paladin for the period 1993 – 2015 in the capacity as Executive Director for 10 years

and as GM – Corporate Affairs. She had a key role in managing that company's growth through mine development, operation, acquisition and exploration. This role included responsibility for the company's complex corporate, legal, human relations and corporate social responsibility programs as an operating uranium miner in multiple African countries.

**Steven Michael BCom, CA, MAICD (appointed 4 August 2022) - Executive Director**

Mr Michael has over 25 years' experience in the global resources sector, specialising in corporate finance and equity capital markets. He was previously a Managing Director at FTI Consulting, an independent global business advisory firm, was engaged by Vimy Resources Ltd Interim CEO in August 2021 and subsequently made Managing Director in January 2022. Mr Michael has previously worked in the natural resources division of Macquarie Bank, Rothschild & Co and Royal Bank of Canada, in global mining equities research and sales, corporate finance and investment banking. He was previously CFO of an exploration and development company with significant uranium resources in South Korea.

**Mervyn Greene MA (Maths), BAI (Engineering), MBA - Non-executive Director**

Mr Greene joined the Deep Yellow Board in November 2006 and was Chairman from August 2007 to August 2013. He is an experienced investment banker and entrepreneur who has been working in investment markets in Africa, Europe and the United States for more than 35 years. His most recent experience has focussed on private equity investment in a range of sectors, specialising in fin-tech, construction, general technology and property. He currently serves as co-founder and Director of EPIC, The Irish Emigration Museum and is co-founder and Chairman of Dogpatch Labs, Ireland's leading tech start-up hub and recently became the Chairman of the NDRC, the Irish government's national tech start-up accelerator. He leads, as managing director, both CHQ Dublin Limited and MGR Properties, specialised Irish property development companies. All these businesses are located in Dublin, Ireland.

**Greg Meyerowitz BCom, CA, MAICD, FCA(ANZ), FFINSIA, MCA(SA) (Appointed 1 December 2021) - Non-executive Director**

Mr Meyerowitz is a chartered accountant with over 35 years of experience in the professional services industry and commerce. As a senior audit partner at the international accounting firm of EY, and head of the Perth Audit Division for 10 years, Mr Meyerowitz has acted as the lead audit signing partner for five ASX 100 companies, including two ASX 20 companies. He has worked across a diverse range of sectors and has extensive experience working with mining and energy companies with global operations in countries such as Australia, Brazil, Finland, Indonesia, Italy, Malawi, Mauritania, Namibia, Sweden and the USA. This includes time spent in the uranium sector.

**Wayne Bramwell BSc Mineral Science – Ext Met, Grad Dip Bus, MSc Mineral Science, GAICD (appointed 4 August 2022) - Non-executive Director**

Mr Bramwell is a metallurgist, mineral economist and experienced company director. He has extensive international and Australian mining, exploration and project development, M&A and governance expertise in precious and base metal companies spanning nearly three decades. He is currently the Managing Director of Western Australian gold miner, Westgold Resources Limited.



**Mark Pitts BBus, FCA, GAICD – Company Secretary/ CFO**

Mr Pitts is a Chartered Accountant with more than 35 years' experience in business administration, statutory reporting and corporate compliance. He is a partner in the advisory firm Endeavour Corporate where he provides company secretarial, accounting, finance and compliance services to publicly listed companies across a range of industries but with a focus on the resources sector, including Deep Yellow. Mr Pitts has previously worked at a senior management level in a variety of commercial and consulting roles and started his career at accounting firm KPMG.

**Ursula Loubser, BCompt (Hons), GradDipCA – Group Financial Controller**

Mrs Loubser has more than 20 years financial management experience within the mining and private security industries. She has a commerce degree from the University of Stellenbosch (South Africa), is a provisional member of Chartered Accountants Australia and New Zealand and member of the Governance Institute of Australia.

**Andrew Mirco, BBus, GradDip – ApplInv&Fin, GradDip – MinExplGeoSc – Head of Business development**

Mr Mirco is an experienced corporate finance and business development executive, with a successful and proven background in capital markets, M&A and risk management. He has more than 25 years' experience in the resource sector, with over ten years at Paladin Energy Limited and prior to this held a number of senior roles at Woodside Energy Ltd. During his time at Paladin, he played an integral part in the Company's inorganic growth, leading to execution of M&A opportunities and asset sales. In addition, he led the project financing for Paladin's mine developments, as well as capital market raisings.

**Dustin Garrow, BAEC, MBA (Mgt) – Head of Marketing**

Mr Garrow brings more than 40 years professional experience in global commercial nuclear fuel markets including marketing and sales contracting for natural uranium concentrates (U3O8), uranium conversion services (UF6) and enrichment services (SWU). He has direct transactional/market research experience with nuclear utilities, uranium production companies, and nuclear-related service firms located in North America, Western Europe, former Soviet Union and the Asia/Pacific regions including the People's Republic of China and India.

**Eduard Becker, MSc, MAusIMM – Head of Exploation**

Mr Becker is an economic geologist with more than 40 years experience in all aspects of mineral exploration, including 30 years specialising in uranium. Mr Becker spent the first decade of his career at Uranerz focussed on Australian projects and close to 20 years at Paladin Energy, until 2015. At Paladin, he conducted exploration for all types of uranium deposits and has managed programs applying all uranium exploration techniques. Mr Becker's experience spans the entire lifespan of uranium operations from greenfields discovery, resource drilling, reserve estimation, project development, mining operations and due diligence assessment. While heading the exploration department for Paladin he oversaw organic resource increases of over 200Mlb U3O8.

**Darryl Butcher, BSc, FAusIMM, FAICD - Head of Project Development**

Mr Butcher brings over 40 years' experience in the mining sector through corporate, operational, development and project management roles both in Australia and

internationally. Mr Butcher is currently Project Manager of the Tumas Uranium Project. Mr Butcher has been responsible for the development and operation of several operating mines in the gold, base metals, uranium, and iron ore industries. Prior to his most recent role as Project Manager at Mali Lithium, Mr Butcher was Executive General Manager, Technical and Project Development for Paladin Energy Limited. Mr Butcher led a very successful innovation and optimisation strategy, resulting in significant improvements to the operating costs at both the Kayelekera Uranium Mine (Malawi) and Langer Heinrich Uranium Mine (Namibia). These gains were achieved predominantly through the innovative use of membrane technology in “world first” applications.

**Dr Anthony Chamberlain, PhD (metallurgy), Grad Dip Extractive Metallurgy, Bsc (App Chem Hons), AusIMM – Project Director Mulga Rock**

Dr Chamberlain was Vimy’s Chief Operating Officer from June 2014 to January 2018. During that time he guided the Mulga Rock Project through the PFS, PER and DFS processes and was involved in the acquisition of the Alligator River Project in 2017. During his twenty years in the mining industry Dr Chamberlain has been involved in operations and project delivery, while also earning a PhD in Metallurgy from Curtin University. Dr Chamberlain has held a number of senior operational and management roles during twelve years with WMC Resources and later BHP Billiton, overseeing an expansion to the Kwinana Nickel Refinery in 2001 and spending a significant amount of time in China as Development Manager for BHP Billiton Stainless Steel Material Group.

**Xavier Moreau, BSc Applied Geology (Hons), MAIG, Member of Societ of Economic Geologists – Australian Exploration Manager**

Mr Moreau was General Manager of Geology and Exploration at Vimy Resources since 2010. During that time he played a key role in large resource definition, baseline studies, metallurgical test work and permitting programs at the Mulga Rock Project. He was also instrumental in securing the Alligator River Project during Cameco’s divestment process and ensured the successful first years of operation on that project. Mr Moreau has over twenty years’ experience in exploration and project development, having spent almost twenty years working on Australian projects, the majority of those being uranium projects. Mr Moreau served as the Chief Geologist of U3O8 Limited after being involved with Areva for over eight years in uranium exploration in the Northern Territory and South Australia and gold development projects in the WA Goldfields.

# Investment risks

Risks include, but are not limited to:

- **Commodity price and exchange rate fluctuations.** The future earnings and valuations of exploration, development and operating resources companies are subject to fluctuations in underlying commodity prices and foreign currency exchange rates.
- **Infrastructure access.** Bulk commodity producers are particularly reliant upon access to transport infrastructure. Access to infrastructure is often subject to contractual agreements, permits, and capacity allocations. Agreements are typically long-term in nature (+10 years). Infrastructure can be subject to outages as a result of weather events or the actions of third party providers.
- **Operating and capital cost fluctuations.** Markets for exploration, development and mining inputs can fluctuate widely and cause significant differences between planned and actual operating and capital costs. Key operating costs are linked to energy and labour markets.
- **Resource growth and mine life extensions.** Future earnings forecasts and valuations may rely upon resource and reserve growth to extend mine lives.
- **Sovereign risks.** Mining companies' assets can be located in countries other than Australia and are subject to the sovereign risks of that country.
- **Regulatory changes risks.** Changes to the regulation of infrastructure and taxation (among other things) can impact the earnings and valuation of mining companies.
- **Environmental risks.** Resources companies are exposed to risks associated with environmental degradation as a result of their exploration and mining processes. Fossil fuel producers (coal) may be particularly exposed to the environmental risks of end markets including the electricity generation and steel production industries.
- **Operating and development risks.** Mining companies' assets are subject to risks associated with their operation and development. Risks for each company can be heightened depending on method of operation (e.g. underground versus open pit mining) or whether it is a single operation company. Development assets can be subject to approvals timelines or weather events, causing delays to commissioning and commercial production.
- **Occupational health and safety risks.** Mining companies are particularly exposed to OH&S risks given the physical nature and human resource intensity of operating assets.
- **Funding and capital management risks.** Funding and capital management risks can include access to debt and equity finance, maintaining covenants on debt finance, managing dividend payments, and managing debt repayments.
- **Merger/acquisition risks.** Risks associated with value transferred during merger and acquisition activity.
- **COVID-19 risks:** Mining companies' rely on freedom of movement of workforces, functioning transport routes, reliable logistics services including road, rail, aviation and ports in order to maintain operations and get their products to market. They also rely on liquid, functioning markets to sell their products. Measures being put in place to combat the COVID-19 pandemic are posing risks to these conditions.

Table 13 - Financial summary

ASSUMPTIONS						FINANCIAL RATIOS							
Year Ending June	Unit	FY22A	FY23E	FY24E	FY25E	FY26E	Year Ending June	Unit	FY22A	FY23E	FY24E	FY25E	FY26E
<b>COMMODITY PRICE</b>						<b>VALUATION</b>							
Uranium Spot Price	US\$/lb	43	43	48	55	60	NPAT	A\$m	(7)	(6)	(27)	(82)	27
Uranium Term Price	US\$/lb	42	43	58	66	72	Reported EPS	Ac/sh	(1.8)	(0.8)	(1.9)	(3.7)	1.1
Uranium Spot Price	A\$/lb	59	59	65	74	81	Adjusted EPS	Ac/sh	(1.8)	(0.8)	(1.9)	(3.7)	1.1
Uranium Term Price	A\$/lb	58	59	78	89	97	EPS growth	%	nm	nm	nm	nm	nm
AUD/USD	A\$/US\$	0.73	0.73	0.74	0.74	0.74	PER	x	0.0 x	0.0 x	0.0 x	0.0 x	8.1 x
<b>PRODUCTION &amp; COST</b>						<b>LIQUIDITY &amp; LEVERAGE</b>							
Production U3O8	Mlbs	0.0	0.0	0.0	0.0	3.8	DPS	Ac/sh	-	-	-	-	-
Sales U3O8	Mlbs	0.0	0.0	0.0	0.0	2.9	Franking	%	0%	0%	0%	0%	0%
C1 Cash Cost	A\$/lb	0.0	0.0	0.0	0.0	39.8	Yield	%	0%	0%	0%	0%	0%
<b>PROFIT AND LOSS</b>						<b>ORE RESERVES AND MINERAL RESOURCES</b>							
Revenue	A\$m	0	0	0	0	282	<b>Deep Yellow - Mineral Resource &amp; Ore Reserve Estimate</b>						
Expense	A\$m	(7)	(7)	(7)	(48)	(170)	<b>Mineral Resources</b>						
EBITDA	A\$m	(7)	(7)	(7)	(48)	113	Measured			71.5	262	41.3	
Depreciation	A\$m	(0)	(0)	(0)	(0)	(42)	Indicated			280.7	268	165.9	
EBIT	A\$m	(7)	(7)	(7)	(49)	70	Inferred			290.8	289	185.2	
Net interest expense	A\$m	(0)	0	(5)	(33)	(38)	Total			<b>643.0</b>	<b>277</b>	<b>392.4</b>	
Unrealised gains (Impairments)	A\$m	0	0	0	0	0	<b>Ore Reserves</b>						
Other	A\$m	0	1	(14)	0	6	Proven			5.3	1,055	12.33	
PBT	A\$m	(7)	(6)	(27)	(82)	38	Probable			107.2	416	98.33	
Tax expense	A\$m	0	0	0	0	12	Total			<b>112.5</b>	<b>446</b>	<b>110.7</b>	
NPAT (reported)	A\$m	(7)	(6)	(27)	(82)	27	<b>VALUATION</b>						
NPAT (underlying)	A\$m	(7)	(6)	(27)	(82)	27	<b>Ordinary shares (m)</b>						
<b>CASH FLOW</b>						<b>Sum-of-the-parts valuation</b>							
Operating cash flow	A\$m	(4)	(5)	(11)	(75)	24	\$m	\$/sh	\$m	\$/sh	\$m	\$/sh	
Investing cash flow	A\$m	(9)	0	(95)	(541)	(246)	<b>+ 12 months</b>						
Free Cash Flow	A\$m	(12)	(5)	(106)	(616)	(222)	<b>+ 24 months</b>						
<b>FINANCING CASHFLOW</b>						<b>CAPITAL STRUCTURE</b>							
Share issues/(buy-backs)	A\$m	25	0	289	249	0	Shares on issue	m				732	
Debt proceeds	A\$m	0	0	290	250	0	Escrow shares / other	m				-	
Debt repayments	A\$m	0	0	0	0	0	Total shares on issue	m				732	
Dividends	A\$m	0	0	0	0	0	Share price	A\$/sh				0.78	
Other	A\$m	(0)	0	(15)	(13)	(0)	Market capitalisation	A\$m				574	
Financing cash flow	A\$m	25	0	564	486	0	Net cash	A\$m				65	
Change in cash	A\$m	13	(5)	458	(130)	(222)	Enterprise value (undiluted)	A\$m				506	
<b>BALANCE SHEET</b>						<b>MAJOR SHAREHOLDERS</b>							
<b>ASSETS</b>						<b>Shareholder</b>							
Cash & short term investments	A\$m	65	60	518	388	166	Paradise Investment Management	%				7%	51.1
Accounts receivable	A\$m	1	0	0	0	27	Mirae Asset Management	%				4%	32.7
Property, plant & equipment	A\$m	1	1	95	636	840	Collines Investments	%				4%	28.9
Mine development expenditure	A\$m	0	0	0	0	0	Andrew MacMillan	%				3%	19.0
Exploration & evaluation	A\$m	50	50	50	50	50	<b>Enterprise value (diluted)</b>						
Other	A\$m	5	5	5	11	39	<b>Shareholder</b>						
Total assets	A\$m	121	115	668	1,085	1,121	<b>Shareholder</b>						
<b>LIABILITIES</b>						<b>Shareholder</b>							
Accounts payable	A\$m	2	2	2	2	3	<b>Shareholder</b>						
Income tax payable	A\$m	0	0	0	0	8	<b>Shareholder</b>						
Borrowings	A\$m	0	0	290	540	540	<b>Shareholder</b>						
Other	A\$m	4	4	4	4	4	<b>Shareholder</b>						
Total liabilities	A\$m	6	6	296	546	555	<b>Shareholder</b>						
Net Assets	A\$m	115	109	372	539	566	<b>Shareholder</b>						
<b>SHAREHOLDER'S EQUITY</b>						<b>Shareholder</b>							
Share capital	A\$m	322	322	611	860	860	<b>Shareholder</b>						
Reserves	A\$m	(2)	(2)	(2)	(2)	(2)	<b>Shareholder</b>						
Retained earnings	A\$m	(205)	(211)	(238)	(319)	(293)	<b>Shareholder</b>						
Total equity	A\$m	115	109	372	539	566	<b>Shareholder</b>						
Weighted average shares	m	370	1,093	1,874	2,547	2,547	<b>Shareholder</b>						

SOURCE: BELL POTTER SECURITIES ESTIMATES

**Recommendation structure**

**Buy:** Expect >15% total return on a 12 month view. For stocks regarded as 'Speculative' a return of >30% is expected.

**Hold:** Expect total return between -5% and 15% on a 12 month view

**Sell:** Expect <-5% total return on a 12 month view

*Speculative Investments are either start-up enterprises with nil or only prospective operations or recently commenced operations with only forecast cash flows, or companies that have commenced operations or have been in operation for some time but have only forecast cash flows and/or a stressed balance sheet.*

*Such investments may carry an exceptionally high level of capital risk and volatility of returns.*

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