

## Great location, mega-gas resource, cashflow on the way

Talon Energy Ltd (ASX: TPD) is an Australian energy company, with huge prospective gas resources in two regions which are short of gas. Specifically, the Western Australian domestic market, where the “Walyering” gas field (TPD: 45%) is to enter production in early 2023, and in the South Gobi region of Mongolia where successful 2022 exploration resulted in a maiden contingent gas resource of 1.2Tcf (gross, 400 Bcf net to TPD). Walyering production will deliver meaningful free cash flow (FCF) and underpins our core asset value, while the W.A. exploration and Mongolia gas resource provide substantial upside. Our core valuation is A\$0.44.

### Transition to a producer in WA Perth basin

The Walyering gas field was discovered in 2021, sanctioned in August 2022, and is being developed with production expected the first quarter of CY2023. This is a very profitable project, due to low exploration & development capex of less than \$15M. TPD’s guidance for FCF generation is \$25-30M after start-up.

### Upside in Perth basin acreage

The Perth Basin is being rediscovered by Talon & others. At Walyering, the total resource is estimated to be 162 PJ or ~3X the current 2P figure, providing upside in the event of more drilling. Elsewhere TPD is working-up the 100% owned Condor prospect, which has a prospective resource of ~400Bcf making this one of the largest undrilled prospects remaining in the basin.

### Mega-upside in southern Mongolia

TPD is earning a 33% interest in the 8400km<sup>2</sup> Gurvantees PSC by funding a multi-phase exploration program for ~US\$5M. The initial exploration phase of 5 wells was completed in September 2022 and was very successful. Reserves assessor NSAI provided a maiden 2C Contingent Resource of 1.2 Tcf (gross), with TPD’s share 401Bcf. The prospective resource in the greater exploration license is 5.3 Tcf (risked, 2U). This is a world-scale resource on the doorstep of the world’s largest gas consumer, China.

### Risks & challenges.

There is no gas production infra-structure in Mongolia and this needs to be established in order for TPD to commercialise its Mongolian resource. At the industry level, fossil fuel projects globally are facing activist headwinds and this may hinder TPD’s access to capital and constrain its ability to operate longer term.

### Valuation: A\$0.44/Share

Our core value is A\$0.44ps based on the NPV of up-coming gas production, a risked estimate of exploration and prospective resources, and peer company value for Mongolian assets. Risks are to the upside if TPD can convert its substantial contingent and prospective resources to reserves and production.



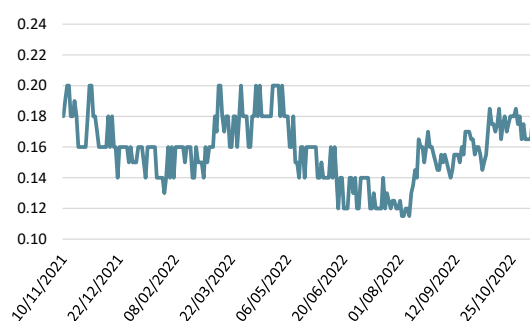
Talon Energy Ltd (TPD) is a gas-focused exploration and production company with assets in the Perth Basin, WA and the South Gobi Basin, Mongolia. In WA, the Walyering gas field is being developed for production in 2023. In Mongolia, 2022 exploration results in the Gurvantees PSC point to a potentially world-scale Coal seam gas project, 20 Km from the China border

Stock	ASX: TPD
Price	A\$.165
Market cap	A\$79m
Valuation (per share)	A\$0.44

#### Next steps

- Secure funding and binding gas agreements for Walyering
- Complete the Walyering field development and enter production early 2023.)
- Gurvantees pilot gas project 2023

#### TPD share price (A\$) – 1 year



Source:Factset

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## Exhibit 1 – Talon Energy. Year-end December 31

Talon Energy (TPD) Market Data		Low	High
Share price	A\$/sh	0.17	
52 week range	A\$/sh	0.12	0.22
Shares on issue	M	440	
Perf shrs + Options	M	23.5	
Market Cap	A\$M	72.6	
Net Cash	A\$M	6.3	
Enterprise Value	A\$M	66.3	

Valuation multiples	2021	2022F	2023F	2024F
EPS	-	-0.03	0.03	0.04
PE	-	-7.00	5.50	4.10
DPS	-	0.00	0.00	0.00
Yield-%	-	0.00	0.00	0.00
CF/sh	-	-0.05	0.03	0.06
P/FCF	-	-	6.20	3.00
EV/EBITDAX	-	-	3.20	2.70
EV/(2P+2C)-\$/GJ	-	0.15	-	-
Revenue/Pje	-	NM	7.10	7.10
EBITDAX/Sales-%	-	-	0.84	0.81
Net cash	-	10.00	22.40	47.80
ND/(ND+E)	-	-	-	-

Price assumptions	2021	2022F	2023F	2024F
A\$/USD	0.74	0.7	0.7	0.7
Brent-US\$/bbl	52.6	86	86	86
WA Gas Px-A\$/GJ	6.5	6.5	6.5	6.5

Production	2021	2022F	2023F	2024F
Gas- PJ	0	0	3.7	4.5
Liquids (MMbbl)	0	0	0.04	0.05
PJe	0	0	3.93	4.78
MMboe	0	0	0.68	0.82

Reserves (PJ)	2021	2022F	2023F	2024F
2P- Walyering		24		
2C- Walyering		39		
2C- Mongolia		466		

SoP Valuation	Risk	Low	Mid	High
Gas price	A\$/GJ	6	6.5	7

Production / near production				
Walyering gas- 2P	100%	98	107	116

Contingent Res / exploration				
Walyering Gas 2C	50%	20	20	21
Prospects	10%	39	39	39
Mongolia		34	34	34
Royalty/other		0	0	0
<b>Total E&amp;P assets</b>		<b>191</b>	<b>200</b>	<b>209</b>
Cash		6	6	6
Debt		0	0	0
<b>Total equity value</b>		<b>197</b>	<b>206</b>	<b>216</b>
Shares FD		470	470	470
<b>Fully diluted Per share</b>		<b>0.42</b>	<b>0.44</b>	<b>0.46</b>

**TPD Relative to XEJ 1 Year**

Income statement	2021	2022F	2023F	2024F
Gas Revenue	0	0	24.1	29.4
Oil Revenue	0	0	3.8	4.6
Total product sales	0	0	27.9	34
<b>Total Revenue</b>	<b>0</b>	<b>0</b>	<b>27.9</b>	<b>34</b>
Field costs	0	0	-3.3	-5.4
G&A	-3.6	-2.7	-1	-1
other	0.1	-0.1	-0.2	-0.2
<b>EBITDAX</b>	<b>-3.5</b>	<b>-2.8</b>	<b>23.4</b>	<b>27.4</b>
Exploration exp.	-0.7	-9	-1	-1
Depreciation	0	0	-2.3	-2.8
EBIT u/l	-4.3	-11.8	17.1	20.6
Finance charges	0	0	-2	-0.6
Tax	0	0	0	0
<b>NPAT-underlying</b>	<b>-4.3</b>	<b>-11.8</b>	<b>15.1</b>	<b>20</b>
Significant items	5	0.1	0	0
<b>Reported NPAT</b>	<b>0.7</b>	<b>-11.6</b>	<b>15.1</b>	<b>20</b>
Share count at EOP (M)	6787	440	440	440

Cash flow	2021	2022F	2023F	2024F
Receipts	0	0	27.9	34
Payments	-1.6	-2.2	-4.3	-6.4
Payments for E&A	-0.4	-6.1	-1	-1
Interest & other	0	-0.1	-0.2	-0.2
Net cash from ops.	-2	-8.3	22.4	26.4
Exp & Dev capex	-5	-11.9	-10	-1
Acquisitions / other	0	0	0	0
Net investing	-5	-11.9	-10	-1
<b>FCF</b>	<b>-7</b>	<b>-20.2</b>	<b>12.4</b>	<b>25.4</b>
Equity issuance	9	13.5	0	0
Debt Issue	10	20	-14	-6
Divs / other	0	0	0	0
Net cash Financing	19	33.5	-14	-6
Increase in cash	12.1	13.3	-1.6	19.4

Balance sheet	2021	2022F	2023F	2024F
Cash	6.7	30	28.4	47.8
Rcbls / Inventory	0.1	0.1	0.1	0.1
P, P & E	0	11.9	19.6	17.8
Exploration & eval	8.9	15	16	17
other	0.1	0	0	0
<b>Total Assets</b>	<b>15.8</b>	<b>57</b>	<b>64.1</b>	<b>82.7</b>
Payables	1.5	1.5	3	3
Debt	0	20	6	0
Other	0.7	0.1	1	2
Total liabilities	2.2	21.6	10	5
Total equity	13.6	15.4	30.5	50.5

Source: MST Access

## Investment Thesis:

### Exploiting locational advantages in gas-short markets

#### Location is *everything* in the gas industry

In the gas industry, location is critical because reserves and resources (1) **need to be located close to consumers**, as transportation and delivery costs are high (relative to oil), (2) **need to be located in “pro-gas” jurisdictions** that allow fossil fuel production, where access is unimpeded by landowners or opposition groups, and where capital markets are open to funding gas & oil projects (3) **and can be explored and produced at low cost**.

TPD satisfies all three, with major gas reserves or resources ideally located close to gas-short markets, and which can be produced at low cost. It is undervalued and offers significant upside should the resource potential be fully realised. It is on the cusp of production and significant cash flow generation, to enable funding the next growth phase

In the near term there are several events to catalyse the share price, such as pilot production in Mongolia, details about gas contracts, and funding and progress toward first gas from Walyering in WA.

Longer term, we believe share price appreciation will come from increases in core value, as TPD expands its WA production operation, and progresses activity in Mongolia, with that JV planning for initial production in 2024.

#### Blink and you will miss them..Talon are in the overtaking lane !

TPD are fast movers and have come from more or less nowhere. Two years ago TPD had little to offer investors but since then have re-focused the asset base, and entered into value-creating projects, one of which is about to generate significant cashflow. In this industry, where there are manifold challenges to getting anything done, to go from grass-roots exploration to production in ~2 years is commendable, and more-so for a small company with limited financial and human resources. In this short period, TPD has invested <\$20M and now has a foot on two projects which provide upcoming cashflow and/or significant exploration / appraisal upside.

#### Commercial production in 2023, at low cost, leading to strong free cashflow

The Walyering gas field was sanctioned for development in August 2022. It is 70% complete at the time of this report, and on track to enter production in early 2023. The operator Strike Energy (ASX: STX) guide for \$50-\$75M gross cashflow in 2023, with TPD 45% share equating to \$25-\$30m FCF in year 1.

TPD invested \$6M to enter the project and pay for appraisal drilling, and capex to first gas is an additional \$8M (TPD share). For an all-up capex <\$15M TPD will net \$25-30M p.a. This is an excellent return on funds employed.

#### The cashflows anchor core value, the large prospective resources provides leverage

TPD is undervalued because the path to cash generation from WA and value creation in Mongolia came with uncertainty. In WA, its about completing the Walyering project. That is a mechanical risk. In Mongolia, the key risk is that geological success may not lead to commercial production because gas markets have to be created, and logistics and infrastructure have to be established to support and ongoing gas exploration and production industry.

It is not unusual for the equity market to discount future cashflow until it lands in the bank, and until Walyering is on production there is construction & commissioning risk, but the Walyering project is about as “simple” as you could get. The wells are drilled, new infrastructure required to produce sales quality gas minimal, and at this time the project is ~70% complete. We model first production from end of 1Q 2023.

#### Track record of value-creation in a short time frame

- November 2020: TPD farm-in to Perth basin EP476, paying \$6m to earn a 45% interest
- January 2021: farm-in to the TMK-operated Gurvantees CSG project in Mongolia paying up to US\$4.5M
- Walyering#5 drilled Q4 2021, discovered gas, and flowed at a peak rate of 75 MMcfd on test.
- Walyering#6 drilled May 2022, flowed gas at 36MMcfd on test
- Walyering Reserves certified July 2021, & project sanctioned in August 2022
- March 2022: 5 well exploration well program commences in Mongolia, & concluded in September 2022
- November 2022: maiden contingent gas resource bookings from NSAI of 1.2 Tcf (gross, 2C) at Gurvantees.

## Upcoming events & catalysts

- Walyering:
  - announcement of binding gas sale agreements & funding for capex to first gas
  - successful mechanical completion of the field development late 2022 and
  - successful commissioning and gas sales in early 2023
- Gurvantees:
  - a go/no-go decision by TPD before Dec 2026, to elect to fund Phase2 and thus earn-in to 33%
  - progression of the planned Pilot production program with execution likely late Q1 or Q2 2023

Potential “left field” events (could happen any time)

- STX farms out its prospective “Ocean Hill” well. TPD has first right of refusal
- TPD attracts farm-in partner / funding to advance Condor
- Potential for a take-over or merger. On November 10 2022, Warrego Energy (ASX: WGO) announced it had been approached by its JV partner in the Perth Basin, Strike Energy (ASX: STX) to merge. Strike Energy is TPD’s joint venture partner in the Walyering

## Valuation: A\$0.44 (core value)

Our sum-of-part (SoP) valuation is built up from our analysis of future cashflows from Walyering, value for exploration assets in the Perth Basin using industry relativities, and equity market “look through” values for TPD’s Mongolian asset via its JV partner TMK. Refer to Exhibit 2. Our A\$0.44 figure is a point estimate.

Our low and high figures are based on TPD’s guidance range on key variables for the Walyering project, specifically gas prices and production profiles (1P, 2P, 3P) and these relate only to the Walyering project. Our low & high figures do not reflect the ultimate potential from ongoing exploration in the Perth Basin, and Mongolia, which will depend on future activity levels, exploration outcomes, and commercial activities.

Exhibit 2 – SOTP Valuation

Asset Value (A\$M)	Risked @	Low	Mid	High	Bookends (L-H)
Gas price	A\$/GJ	6	6.5	7	
Walyering gas- 2P	100%	98	107	116	WA gas price, 2P =54 gross
Walyering Gas 2C	50%	20	20	21	Incremental 2C 32PJ gross
Prospective resources	10%	15	15	15	164 total (gross)
Perth Basin -Condor	5%	24	24	24	408 BCF Prosp. (unrisked)-COS=15%
Ocean Hill "rights"		0	0	0	
Mongolia		34	34	34	TMK look through
North Sea Royalty int		0	0	0	
Total E&P assets		191	200	209	
Cash		6.3	6.3	6.3	Sep-30 2022
Debt & other obligations		0	0	0	Sep-30 2022
Total equity value		197	206	216	
Shares on issue		440	440	440	
Perf rights & options		29.5	29.5	29.5	
<b>Fully diluted Per share</b>		<b>0.42</b>	<b>0.44</b>	<b>0.46</b>	

Source: MST Access

## Perth Basin “rediscovered”. What a great place to be a gas molecule

The Perth Basin, 200-400 Km north of Perth, has re-emerged as a gas-rich region after decades of neglect, and TPD has significant exploration acreage, and a soon-to-be commercial gas project. It is conveniently located close to the large, WA industrial gas market where prices are firming. Its onshore location provides excellent access to critical logistics such as skilled labour, power, and transport. For gas, there are pre-existing pipelines and process plants to provide production infrastructure.

### Rediscovered? Not really..

This region hosted the earliest WA gas production, at Dongara ~1970, supplying Perth. This field fully satisfied the Perth market at that time, and then after 1984, was flooded by the giant gas discoveries by Woodside off the Northwest Shelf. Plentiful supply effectively sterilised the market for new entrants for the next ~20 years

Drilling activity was sporadic with a few small discoveries but nothing to excite the industry, until the basin was “rediscovered” by AWE with its drilling at the Senecio#3 location in 2013, which morphed into very large Waitsia in 2014. The exploration industry quickly figured there were deep gas exploration targets. Modern 3D seismic helped to define these and subsequent drilling by several companies has now discovered ~2Tcf-of gas in total, at Waitsia, West & South Eregulla, Lockyer Deep, and Walyering.

In tandem, the gas market dynamics were gradually shifting, from excess supply to a tighter market, as cheap gas from the giant fields in the “north west shelf” were depleting, without reserve replacement.

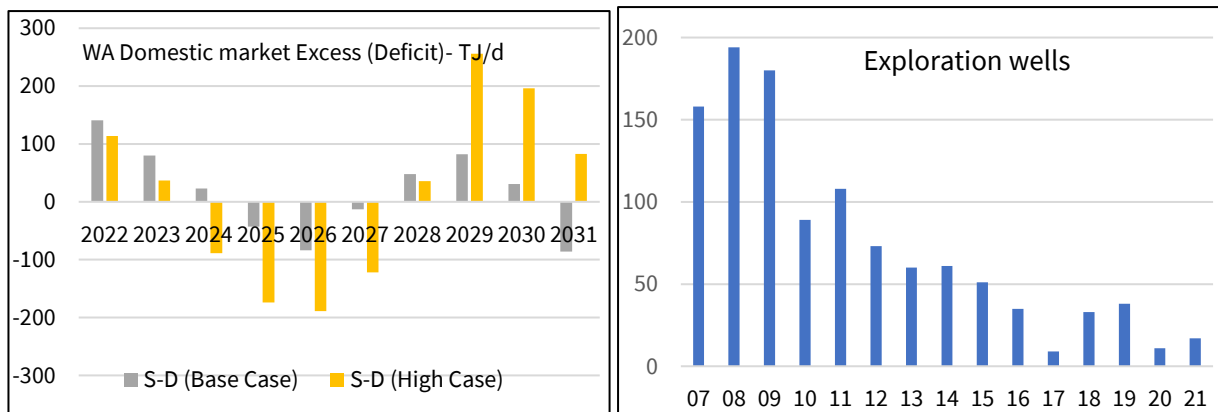
### WA Gas market. Hey we are running out of cheap gas..please help !

Now, gas prices are rising, and the opportunity to market large volumes of gas for the domestic consumers, LNG and emerging “renewables” markets is stimulative.

The WA domestic gas market is two-thirds the size of that of eastern Australia. Over the next 5 years it is forecast (by AEMO) to grow 10%, driven by expanding mining and minerals processing which accounts for 62% of the market, followed by industry (16%) and gas-to-power (15%).

Over the same time, supply is forecast to fall by 8%, due to reserves downgrades, production depletion and insufficient re-investment. Refer to Exhibit 3. In its 2021 “WA Gas Statement of Opportunities” AEMO forecasts the WA domestic market falling into a significant **deficit by 2025 of between 85 TJ/d and 189 TJ/d** in the “high” case. For major consumers looking to secure large volumes over long duration, this is not a good situation. Domestic gas prices, which for many years were very low at <A\$4/GJ, are rising as the market tightens. The supply / demand situation is probably worse, because historically AEMO have over-estimated supply growth and factored in new projects ready to supply gas at cheap prices. In fact, decades of low prices killed exploration & development activity. It will take years to turn this around.

Exhibit 3 – Western Australia market deficit, and historical drilling activity



Source: AEMO Annual WA Gas Statement of Opportunities (SOO)

## TPD in the Perth Basin

TPD has two permits in the Perth Basin. Refer to Exhibit 4

- EP447. 1110 km<sup>2</sup>, containing the Walyering gas resource, ~200 Km north of Perth. Operator. Strike Energy (55%) and Talon (45%).
- EP494 & surrounding blocks, ~60 Km north of Perth. 100% Talon. Contains the ~408 Bcf “Condor” gas prospect. This is one of the largest undrilled wet-gas Jurassic prospects in the basin
- EP495. 100% owned & operated by Strike Energy. TPD have a “Limited First Right of Refusal” to farm-in to this permit, in the event that Strike seeks a farm-on partner

Exhibit 4- Perth Basin geographic location



Source: Talon Company reports.

### A great location, close to markets, infrastructure, logistics in a supportive regulatory regime.

The Walyering gas field is located in permit EP447, approximately 200 km north of Perth. Interest holders are STX (55%) and TPD (45%). From a development perspective, it doesn't come much better. There is an under-utilised “Parmelia” Gas Pipeline passing through the field and 3 Km from Walyering#5 well, and compressor station to receive gas 3 km away. This is a key gas transport route to Perth and the southern industrial gas market

## Exhibit 5 Ariel view of Walyering wells and production infrastructure



Source: TPD Company reports

### The complete story

The Walyering gas field was discovered (or re-discovered) in 2021, was declared commercial and sanctioned in August 2022, with gas sales in place and production expected early CY 2023, providing \$50-\$75m of gross cashflow p.a, to the joint venture partners, with \$25-\$30M net to TPD.

Walyering#1 was drilled in 1971, and tested gas at 13.5 MMcfd, and was followed up in 1972 with Walyering#2,3 & 4 but these failed to find and flow gas to surface at meaningful rates. In retrospect, these wells located off ~50-year-old 2D seismic, were not located on the main part of the field.

In 2018, Strike Energy acquired the permit and in 2019 acquired high resolution 3D seismic, which dramatically improved imaging of the deep reservoirs previously not identified off older 2D seismic. The rather busy graphic in Exhibit 6 shows the potential gas bearing reservoirs in red, as interpreted from the 2019 seismic data, and shows that the early wells were not drilled on the main part of the field.

### Walyering: from exploration to production in <2 years

Walyering#5 was identified as likely to hold gas up-dip from Walyering#4, which encountered water in the target.

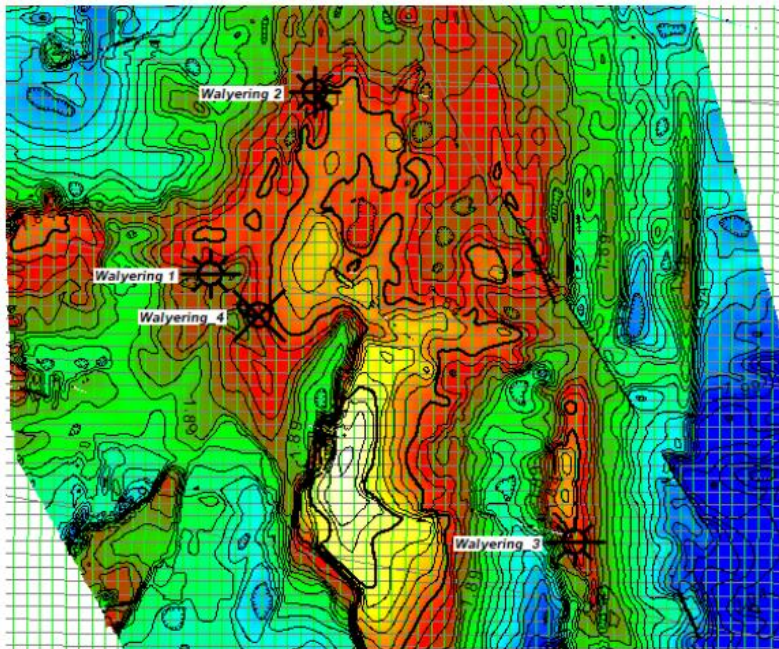
**Walyering#5** spudded in November 2021 and reached TD of 3435m ~14 days later, which is fast by industry standards. It encountered 51m of net pay in 4, high quality conventional Jurassic sandstone reservoirs, thus confirming the seismic interpretation of the structure. Logging and testing showed excellent reservoir qualities. The well was production tested in May 2022 and flowed gas at peak rates of 75 MMcfd (combined, from 4 separate reservoirs between 2969m and 3212m), with a stabilised rate of 67MMcfd reported.

**This well was immediately followed by Walyering#6**, which commenced in April 2022 and reached a target depth of 3550m in May 2022. Net pay of 12m was reported in high quality reservoir and the well flowed at a peak rate of 35mmcfd on test.

The flow rates from both wells are very high by industry standards and confirmed a field of significant size capable of flowing at commercial rates. In addition, the successful application and interpretation of modern seismic has upgraded the prospectivity of analogous geologic settings, which are believed to exist elsewhere in the Basin and specific to TPD, the “Condor” prospect, outline later in this report

Exhibit 6- Field map showing seismic amplitudes ( in red) signalling gas

**Walyering 3D map: near A Sand**



Source: STX and TPD Company reports

**The Talon farm-in: Good deal, great timing.**

In 2020, 100% interest holder in EP476 Strike Energy, conducted a farm-out process which culminated in TPD agreeing to a farm-in for a 45% working interest, for a commitment to fund the first \$6M of the planned \$9M Walyering#5 well. That commitment was met with the drilling of Walyerin#5 and TPD has secured a 45% working interest. That was an excellent deal in retrospect, and a deal like that could not be done now, as it pre-dates a series of large discoveries which have likely pushed up buy in prices for late entrants.

**Reserves and resources**

On the basis of the 5 wells now drilled over the Walyering structure, the field architecture and sub-surface geology is becoming better understood (de-risked), and on that basis, reserves are assigned by RISC and announced on July 21, 2022. These are shown on a gross basis in Exhibit 7. Our base case valuation and financial model is built around the 2P reserve of 54 PJ, however there is considerable upside from contingent resources, and prospective resources.

**The 3P/3C/3U categories total 164 PJ** i.e. about ~3X the 2P estimate. These additional resources are believed to exist in undrilled or untested compartments and reservoirs and will require additional drilling and development to confirm and commercialise. Our valuation assigns value to these various resource categories, on a risked basis as per industry standards, to reflect higher uncertainty.

Exhibit 7 –Walyering field gas reserves & resources (PJ)

Reserves & Resources (PJ)	1C	1U	2P	2C	2U	3P	3C	3U	
<b>Gas-100% basis</b>	32	18	6	54	32	16	82	51	31
<b>Liquids</b>	0.33	0.18	0.06	0.55	0.31	0.16	0.85	0.5	0.3
<b>Net to TPD (PJ)</b>	14	8	3	24	14	7	37	23	14

Source: Company reports



## Next phase: Development

On August 15 2022, the STX/TPD sanctioned the Walyering development 9 months after the discovery, which is very fast by industry standards. A number of factors which are perhaps unique to this are:

- Data from 5 wells have been drilled, which reduces geological uncertainty
- Flow rates are high, enabling commercial production from just the two wells Walyering#5 &6.
- The immediacy of critical gas production infrastructure, namely the Parmelia gas pipeline 3 Km away
- Gas quality is excellent and meets pipeline and gas customer sale quality. This is rare, as typically field gas comes with impurities such as CO<sup>2</sup>, water, and nitrogen. Walyering gas has a very high percentage methane. The only field processing is to remove the condensate on site
- Low-cost development: The JV site incremental capex of \$14.4M, to tie-in to the Parmelia sales gas pipeline, build on-site condensate storage & truck load-out, complete 2 existing wells.
- Gas pressures in the field high enough to enable field gas to enter the sales gas network without the need for compression facilities at the field, until later in field life (>3 years)

As of October 19, the Operator advises the project is 70% complete, and on target for gas sales early 2023

## Key development parameters & inputs to our valuation

- TPD and STX have term sheets for gas sales which we anticipate will be converted to binding gas sale agreements (GSA's) by year end 2022.
- Plant capacity 33 TJ/d and 250 Barrels of Condensate per-day (BCPD). Production plateau for 3 years before depletion.
- Initial development capex \$ 14.4M (gross) including completion of the two existing wells, liquids storage and associated infrastructure. Incremental capex in year 3 for field compression to maintain deliverability
- STX advise "strong customer interest" for gas priced in the range A\$6-7/ GJ. Our base case earnings model assumes A\$6.5/GJ
- Fixed annual OPEX ~ \$2.7M p.a, and variable gas transportation costs of 22c/GJ. Field to be un-manned, and operated remotely by STX from Perth, eliminating on-site labour
- WA state royalty 10%
- Commissioning gas by year end CY2022, with sales 1Q CY2023.

Initial production will provide the JV with important production data which will inform where, when or if further drilling is justified. At this time, our economic model and forecast earnings are built around the 2P reserve, which is a market-wide practise recognising that at this time, this is the "most likely" case

The current 2P reserve is 54 PJ and won't support a plant with annual delivery capacity of ~12 PJ p.a. for more than 2-3 years before entering steep decline. If the 2C and 3P & 3U reserves and resources are taken into consideration, the total resource potential is ~160 PJ.

Proving the upside resources is potentially very valuable, and additional wells will be required. Planning is underway for W6 and W7, with the timing driven by ullage in the plant, so won't be for a few years, and in the meantime production history will provide the operator with valuable data to inform well location and timing

## Funding

STX and TPD are funding their respective share of development independently.

STX has secured debt funding for its share, and TPD are in the process of arranging debt, which should enable both companies to meet expenditure commitments through to first gas in Q2 2023.

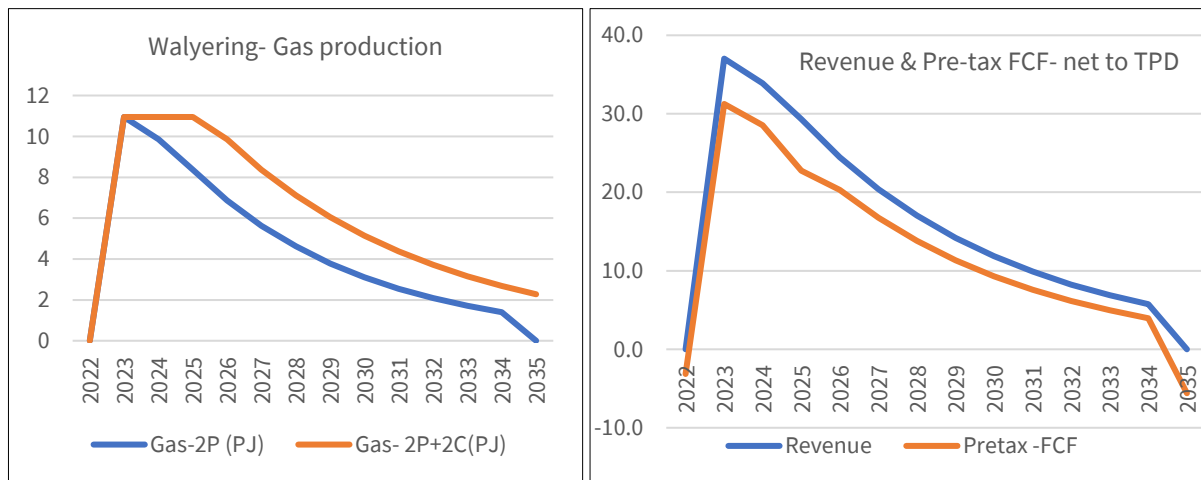
## Production, revenue and FCF, Valuation

The JV advises that at plateau rates, the field should deliver gross cashflow in the range \$50-75M p.a, and due to the low operating costs, a FCF yield in the order of 90%. MST modelling confirms these estimates as reasonable, based on the assumptions provided.

The critical drivers of value are principally (1) realised gas prices and (2) Gas production rates, and ultimate field recovery.

Exhibit 8 shows production estimates based on exploitation of the 2P reserves as a base case, and an upside case which includes capture of the 2C, through the drilling of additional wells in the outer years, and our forecasts for revenue and FCF.

Exhibit 8 Walyering gross production, revenue & cash-flow



Source: Company reports.

## Un-risked upside from reserves growth

Our base case valuation assumes only the 2P is recovered, which is conservative. The estimated potential total resource (3P+3C+3U) is 164 PJ, about triple the 2P in our base case. The upside in capturing this is shown in Exhibit 9. The figures are un-risked, and intended only to demonstrate value in the best-case reserve outcome

Exhibit 9- Valuation & upside in the event of reserves growth

Potential – un-risked upside							
	2P	2C	2U	3P	3C	3U	Total
Gas Volume-100%	54	32	16	28	19	15	<b>164</b>
Net to TPD	24	14	7	13	9	7	<b>74</b>
Gas Px-\$6/GJ	98	41	16	14	9	7	<b>185</b>
<b>Gas-\$6.5/GJ (Base)</b>	<b>107</b>		39	17	15	10	<b>197</b>
Gas-\$7/GJ	116	42	19	17	11	9	<b>214</b>
NPV/GJ	4.42	2.72	2.4	1.2	1.2	1.2	

Source: Company reports & MST data.

## Other Perth Basin exploration prospects

### Ocean Hill (EP495)

The Ocean Hill gas prospect is an early gas discovery (~1991) in permit EP495, currently owned 100% by Strike Energy. According to Strike, this prospect has been de-risked following the results and knowledge gained from the Walyering drilling. As part of the farm-in to EP347 (Walyering), TPD secured a “first-right-of-refusal” to enter into this permit, in the event that STX farm-out a portion of its interest. In June 2022, TPD advised that it had been negotiating a farm-in, but negotiations were not concluded as commercial terms could not be agreed. TPD retains the “first refusal right”.

In September 2022, STX announced that RISC had upgraded its contingent resource estimate at Ocean Hill, to 300 Bcf (100%)

### Condor prospect

In January 2021 inked a multi-stage farm-in option to three prospects in the Perth Basin and In July 6, 2022, entered into a binding contract with private company “ Macallum Group” to acquire 3 blocks in the southern Perth Basin, 7977, 8049 and 8121. At this time, TPD is in the process of having all the blocks converted to a single exploration permit.

The acreage contains one of the largest undrilled wet-gas prospects in the Perth Basin, Condor, which has been assessed by RISC to contain a prospective resource of 408 Bcf of gas, and 23 MMbbls of condensate. Again, the location is excellent, close to Perth and the adjacent Parmelia gas pipeline.

Prospectivity has risen due to other discoveries in the past 2 years in similar aged Jurassic reservoirs within the basin

## Industry consolidation

At the time of this report, there are two ASX listed energy companies which are subject to merger or acquisition activity.

One is an approach to acquire Origin Energy, the other is an approach to Warrego Energy from Strike Energy to merge, and on November 11 this offer was countered by one from Beach Energy to acquire WGO for 20 cps cash

The bidding war for Warrego has positive implications for TPD, which we have yet to assess.

## Mongolia: huge resource on the door-step of gas hungry China

Talon are funding, and earning-into, the Gurvantees coal-seam gas project, in the South Gobi region, of southern Mongolia. The Gurvantees Production Sharing Concession covers 8400km<sup>2</sup> and is currently 100% owned and operated by Australian company TMK Energy (ASX: TMK). At the completion of Talon's farm-in, it will have earned a 33% working interest, and TMK Energy's interest will reduce to 67%. Key points are:

- Huge concession of 8400 km<sup>2</sup>, close to the China border, and Chinese gas pipeline infrastructure
- Highly prospective for coal seam gas, due to extensive surface coals mining activities, 2500 bore-holes to define the geology
- World-scale Prospective gas resource ~18 Tcf (2U, unrisks)
- Low-cost exploration drilling. So far, the JV has spent less than US\$5M on 5 wells to generate a potentially world class resource, with TPD's investment < US\$3M.
- Fast-pace of activity from award of license, & approvals and completion if first phase of exploration (< 2years). Cycle time from start of exploration to resource booking ~ 9 months.
- TPD funded an initial exploration program of 5 wells, with exceptional results in terms of thickness and continuity of coal seams over a large distance, high gas content & gas saturation, and initial permeability test indicating good permeabilities.
- **Maiden Contingent Resource estimate of 1.2 Tcf (gross) following NSAI review of the 2022 drilling program revealed on November 3, 2022**

The Operator TMK is designing a pilot project as part of the next phase of activity, with pilot wells to be drilled and tested during 1H 2023. The timing will be subject to the procurement of long-lead time equipment such as well-heads, tubulars and down-hole pumps, in tandem with agreements for water disposal.

### Exhibit 10- Location of Gurvantees PSC in southern Mongolia



Source: TMK Company reports.

### The Gurvantees XXXV project: lots of coal..lots of gas

There is a significant body of geological information from extensive coal exploration and open-cut coal mining in Southern Mongolia. In the Gurvantees concession there are ~2500 drill holes to determine the nature of the coal seams, depth and thickness, although the majority of these are shallow holes with total depths <300m. Nevertheless, there are ~230 wells with total depths between 300m - 800m depth range which is likely the most economic range for CSG. Coals are laterally extensive and trend for 120km east-west.

Prior to the current activity, there are 5 historic CSG wells and 131 desorption results from wells drilled between 2004 and 2016, in exploration programs conducted by Stormcat Energy Corporation (in 2004 and 2005) and later by Mongolian company Uzukh Zoos LLC. Early pioneer Stormcat Energy discontinued exploration in 2005 citing the lack of infrastructure, rather than the geology. Stormcat's early drilling pre-dates the emergence of China as a market, as at that time, China was self-sufficient in gas, did not import LNG, and the central Asian pipeline to Turkmenistan and beyond did not exist. In the subsequent 17 years, the situation has changed radically.

### Recent chronology

- January 2019: Prospecting Agreement for Gurvantes XXXV awarded to Telmen Resources (now TMK Energy)
- Feb 2019-June 2020: completion of the initial work program, including 20 km of 2D seismic
- January 2021, Talon Energy farm-in agreed
- July 2021: Production Sharing Contract (PSC) awarded
- August 2021: Reserves assessor NSAI estimates a "best case" prospective resource of 5.96 Tcf (risked, 100%)
- September 2021: Exploration licence awarded with 15-year term
- 3 February 2022, EIA approved by the Mongolian Ministry of Nature, Environment and Tourism, being the last regulatory consent required before the commencement of drilling.
- March 2022: 4 well drilling program commences, which was subsequently expanded to 5 wells. This program was completed in September 2022
- September 2022; Phase 1 exploration concludes, JV moves to a pilot program
- November 3, 2022, maiden Contingent Resource estimates provided by NSAI, of 1.2 Tcf (gross)

### The Talon farm-in.

In January 2021, Talon Energy agreed a farm-in to the Gurvantees project, which if fully executed, will earn TPD a 33% working interest in the license in return for funding and free- carrying TMK through a staged work program and expenditure commitment of up to US\$4.65M, as follows

- Cash considerations of US\$0.1M on execution of the term sheet, and US\$0.25M upon award of the PSC. The PSC was awarded, and this consideration paid.
- TPD to pay 100% of the costs of an agreed work program of at least 4 core holes with a cost up to US\$1.5M (Initial work program). This phase has been completed and paid
- At the conclusion of the initial work program, TPD can elect to either terminate the agreement without earn-in, or proceed to enter a second work program to commit up to an amount of US\$3.15M, with TMK free-carried through this expenditure. TPD have until December 26 to elect to enter, and fund, this phase
- TPD to pay a deferred consideration, of between zero and US\$1M, in the event Contingent 2C resources are booked in the range 0.5 Tcf to 1.5 Tcf (gross), on a pro-rata basis for any figure between 0.5 and 1.5 Tcf.

### Exploration results: As good as major basins anywhere in the world

In March 2022, TMK began the "Initial work program" with expenditure of up to US\$1.5M, for the 2500m of drilling and coring in 5 exploration wells. This was completed in September 2022. Key geological results are in Exhibit 11.

It is significant to note that the 5 wells drilled to date extend 10 km from east to west, and effectively explore less than 2% of the license area.

Exhibit 11 – Key geological parameters from the Gurvantees phase 1 exploration program

Well name	SL-1	SL-2	SL-3	SL-3R	SL-4	SL-5	SL-5R
Date completed	May-22	Jun-22	Jul-22	Sep-22	Aug-22	Aug-22	Oct-22
Total Depth (m)	675	540	348	558	348	354	511
Net coal thickness (m)	60	91	60	175	40	40	69
Gas content (as received)-m3/t	13.2	9.3	9.8	7.5-12.5	5-7.5	5-7.5	5-7.5
Gas content (daf basis)-m3/t	15.7	10.6	11.8	In Prog.	In Prog.	In Prog.	In Prog.
Gas saturation	>80%	>80%	>80%	In Prog.	In Prog.	In Prog.	In Prog.
Methane content-%	96	97	95	92	98	97	96
CO2-%	3	1.4	2.8	5.5	1.1	0.7	1.7
Perm- Upper seam (mD)	0.1	45-47	16-19	Not tested	N/A	N/A	Not tested
Perm- Lower seam (mD)	N/A	0.04	N/A	N/A	0.13	N/A	N/A

Source: TMK Energy

## Maiden contingent resource booking ~1.2 Tcf !!

Exhibit 12 documents contingent resources risked prospective resource estimates, as provided by Netherland Sewell and Associates on November 3, 2022. These impound the 2022 drilling results. Importantly, these contingent resources are assigned only to the upper of two coal seams, with a lower coal seam needing more testing and permeability data.

Exhibit 12 – Independent resource estimates for Gurvantees (Gross & Net to TPD)

Gurvantees Resource- Tcf	1P	2C	3C	1U	2U	3U
NSAI Assessment (3/11/22)	398	1214	2415	2621	5303	9895
Net to TPD (33%)	131	401	797	865	1750	3265

Source: Company reports. ASX release of November 9 2022 details NSAI resource statement.

## Fiscal terms & tenure.

Fiscal terms for the Production Sharing Agreement (PSA) are not publicly disclosed, however are referenced in the documents accompanying the Telmen /Tamaska merger in February 2022. Broadly, the profit splits and state royalty are considered to be “in line with accepted industry standards”. The PSA was awarded on 21 July 2021 and expires in July 2031

## Development scenarios

It is very early days into this project, but in its Expert Report attaching to the Telmen /Tamaska merger in Feb 2022 RISC outlines a staged development concept, which could exploit ~1000 Bcf of gas, initially to displace diesel from mine-site power generation. The concept is to produce 55 TJ/d (20 PJ p.a ) over 25 years. Export agreements to China would be needed to underwrite a larger project. To fully exploit the 3292 Bcf resource identified in the Nariin, Enkhen and Biluut regions, RISC postulates 400-1500 wells would be needed, and which would be a major undertaking for any company. At this time, the JV does not have the financial capacity and organisational depth that would be required to deliver a large production project. Securing funds and finding partners with development skills are critical to progression beyond an exploration phase.

To put some perspective around the value of ~1000 Bcf, if proved to the level of 2P reserves, in Australia currently, companies that have commercial 2P gas production are priced between A\$1.20/GJ and \$2.10/GJ and so a ~1000 Bcf resource, would command a value of between ~A\$1 and A\$2B.

A ~20 PJ p.a. gas contract, from the perspective of revenue potential, with gas prices at ~\$10/GJ, would deliver a revenue stream in the order of \$200M p.a.

Thus a key observation is that if the Gurvantees JV can progress and prove and produce such volumes, then the upside compared to the current market valuation is multi-fold.

## Logistics & operational considerations

The area where the Gurvantees joint venture is drilling (See Exhibit 13) is generally flat, not vegetated, lowly populated and not privately owned. It rarely rains but freezing winters present challenges for workers on location. There are very large open-cut coal mines in the license area, and the JV is exploring opportunities to dispose of produced water and / or sell gas to these mines, which are reliant on imported fuel and need water to run the coal wash-plants. This region has all the hallmarks of “frontier” but compared to Australia, access to site is un-impeded, Government support is strong, and the planning and approval processes are short, enabling the Gurvantees JV to go from the award of a PSC to establishing a resource in ~18 months.

However, the JV and others that are active in Mongolia (Elixir and Jade) will effectively have to build the Mongolian CSG industry from the ground up.

The operator, TMK has an operations office in Mongolia’s capital, Ulaanbaatar, with 18 full and part time employees experienced in commercial, legal, accounting, environmental, site logistics and field operations.

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### Exhibit 13 –Open terrain, basic drilling keeps costs low...

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Source: TMK Energy & TPD company reports.

In-country drilling equipment is sparse, but TMK/ TPD are drilling shallow wells which do not require a lot of sophisticated, hi-spec gear. The pic on the right is the drill rig on location. Day-rates for this equipment are low, and to date, the JV has been able to drill CSG wells to 500-600m for ~US\$200k per well. This is an order of magnitude lower than the cost for a similar well in Australia.

### PetroChina Co-operation MoU

On August 11, 2022 the operator TMK announced signing of a non-binding MoU with a subsidiary of the Chinese energy giant, Petrochina to enhance and accelerate the Gurvantess project.. Petrochina is China's largest oil producer and gas importer. It is an established oil producer in Mongolia, and has a fleet of drilling rigs, field personnel, and in-country operations to support its ~30,000 bopd oil fields in the west of the country. The MoU may lead to PetroChina participating in future field appraisal & development, including potential for gas sales.

### Next phase: Pilot program

If TPD elects to enter phase 2, then it is committed to invest US\$3.15m to fund the “pilot “program.

Planning is underway for a 3-well pilot likely to commence in 1H 2023. Key learnings are

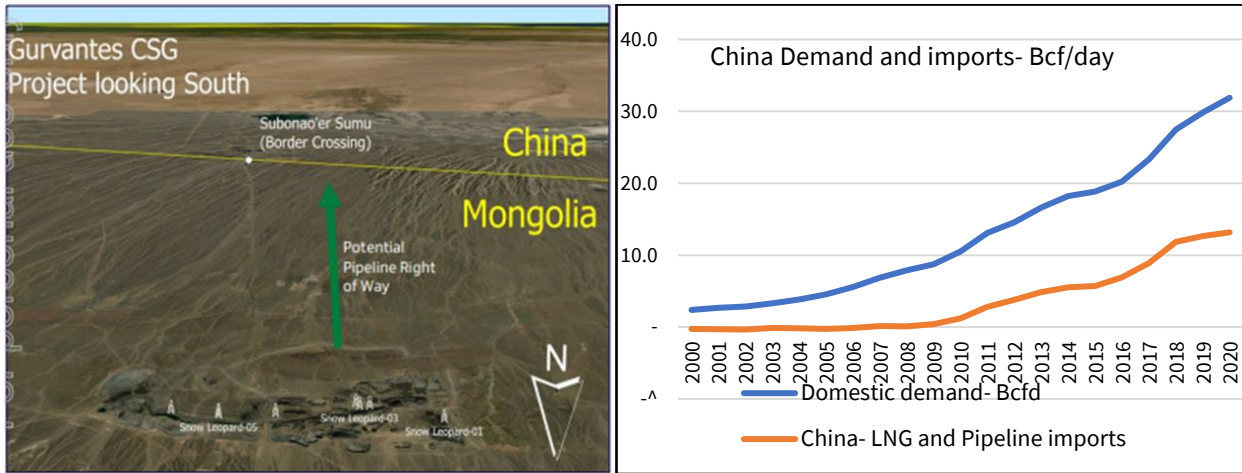
- Understand the de-watering. Production wells need to be de-watered before steady state gas production is achieved.
- Determine coal permeability and long-term gas production profile
- Determine the amount of “fines” (i.e debris) likely to be produced, to inform well design, choice of completion equipment and location of down-hole pumps.

This is critical to understanding what is required in order to move to commercial production.

### Gas markets. China is the world's largest gas importer and oh so close !

The China border is 20 km to the south, and there are major long-distance gas pipelines bringing gas from central Asia to China. As detailed later in this report, China's demand for gas outstrips its domestic production, growth rates in consumption are close to double digit, and so the incremental demand can only be satisfied from either LNG imports and/or pipe-line gas from central Asia. Both sources of gas are expensive, relative to closer points of supply, such as southern Mongolia.

Exhibit 14– A hungry China gas market...20 Km away



Source: Company reports. China gas demand and LNG & pipeline imports. Source: IEA

China is the world’s largest importer of natural gas, by pipeline from central Asia and via LNG, overtaking Japan in 2020 as the world’s largest LNG importer

In 2020, China gas consumption was 32 Bcf per day, accounting for 9% of all global demand, and cagr growth in the past 10 years has been a staggering 12% p.a. However, Chinese own production has not been able to keep up with run-away demand and the balance is met by LNG imports and pipeline imports. LNG imports into China in 2021 were 74 MT. China now accounts for 19% of all global trade in LNG.

Clearly there is a very large China gas market opportunity, and again, location is a competitive advantage for the Gurvantees joint venture in accessing this market, compared to costly LNG and pipeline imports.

### Mongolia gas market

There is no production infrastructure for gas. There are no gas networks in the major cities or the capital, and all primary energy is generated from coal, or imported diesel. At the residential level, coal is used because there are no other alternatives.

Given the relatively sparse population, it would appear impractical to try to set up a gas distribution system, and the capital is hundreds of km away from the south Gobi region. Bottled gas may be an opportunity for gas producers

There are opportunities to displace diesel which is widely used for mine-site power generation. The natural resources industry is large and well established in Mongolia, accounting for 40% of GDP

Other ideas being considered among the various industry participants are:

- Use of small mini-modular LNG or CNG plant to compress and ship the gas to consumers
- Use of gas in the hydrogen generation chain, potentially including production of Ammonia and Urea, or methanol

With the air quality in the capital city about the worst in the world, the Government is supportive of getting a gas industry up and running. For operators in the country such as TMK and TPD, regulation processes are efficient and by the standards of Australia, very fast.



## Other assets

### North Sea royalty interests.

Until 2022, TPD had exploration acreage in the UK North Sea. In 2022 a decision was taken to exit this acreage and avoid the potentially large exploration commitments required.

In May 2022, permit P2527 was transferred to Finder Exploration (ASX: FDR) in return for a 12.5% royalty on any gross income received by FDR in the event of sale or farm-outs, reverting to a 3% share of Finder's net petroleum income during the production phase. FDR has this acreage on the far-out market, and if successful would be a source in income to TPD however we are unable to identify the quantum, likelihood or timing.

## Financials & valuation

### Capital structure

The current share count is 440.3 M ordinary shares, 11.7M unlisted options exercisable at 12c, expiring 28/2/2024, and 17.775M performance rights.

The performance rights are in 13 tranches with various vesting and expiry dates through to June 2028, and these are awarded to Directors, employees, and consultants. The conditions and vesting schedule are not listed here for brevity and are documented in TPD's half year and full year accounts.

### Model assumptions and financial forecasts

Exhibit 1 on page 2 shows our forecasts. Key assumptions and observations are reiterated here

- All figures are in AUD unless otherwise stated
- Financial year end is December 31
- Growth in Revenue from 2023 is driven by production from Walyering at the design rate (less allowance for down-time) at an average portfolio gas price of A\$6.5/GJ
- OPEX and other inputs as guided
- Balance sheet: Nil debt and no material liabilities apart from payables.

### Capital adequacy, capex commitments and funding

TPD has been very frugal to date, and at June 30 2022, had balance sheet values of \$10.6 mostly comprising investments into Mongolia and Walyering, and given the ~\$150M value we have derived, its clearly an excellent return

Over the next 6 months, TPD will need to fund the completion of Walyering which is underway and likely to approach \$8M, and if it chooses to move to Stage 2 activity in Mongolia, fund another US\$3.1M. Given the current cash position is ~\$6.3M, TPD may need additional working capital in the short term.

Beyond meeting the capex commitments at Walyering and Mongolia, TPD does not have any onerous future commitments for drilling and any expenditures are discretionary and driven by new venture activity, such as farm-ins.

In the absence on new venture activity, cash will build up on the balance sheet. The use of that cash is to be determined, but we rule out dividends (no franking credits) and would expect the company to continue looking for value-creative opportunities.

## Valuation: Core A\$0.44

Our valuation is a Sum-of-parts made up as follows”

- Perth Basin Walyering gas project. We value this on a discount of future cashflow (DCF)
- Perth Basin exploration acreage using industry benchmarks for prospective resources
- Mongolia: we reference TPD’s JV partner TMK which has an EV of \$69M (at 2.0c), for 67% of the Gurvantess PSC. The look-through market value for TPD’s 33% interest is \$34M
- Net cash of \$6.3M at September 30, 2022
- This is a core value underpinned by production and risked exploration. It does not capture upside if TPD can successfully convert prospective resources to contingent to proven and then ultimately production.

### Exhibit 15 – Sum-of-Parts valuation

Asset Value (A\$M)	Risked @	Low	Mid	High	Bookends (L-H)
Gas price	A\$/GJ	6	6.5	7	
Walyering gas- 2P	100%	98	107	116	WA gas price, 2P =54 gross
Walyering Gas 2C	50%	20	20	21	Incremental 2C 32PJ gross
Prospective resources	10%	15	15	15	164 total (gross)
Perth Basin -Condor	5%	24	24	24	408 BCF Prosp. (unrisked)-COS=15%
Ocean Hill "rights"		0	0	0	
Mongolia		34	34	34	TMK look through
North Sea Royalty int		0	0	0	
Total E&P assets		191	200	209	
Cash		6.3	6.3	6.3	Sep-30 2022
Debt & other obligations		0	0	0	Sep-30 2022
Total equity value		197	206	216	
Shares on issue		440	440	440	
Perf rights & options		29.5	29.5	29.5	
<b>Fully diluted Per share</b>		<b>0.42</b>	<b>0.44</b>	<b>0.46</b>	

Source: MST Access

### Methodology

- Walyering is valued at the NPV of future 2P cashflows to 2035, at a WACC of 10% for “PV-10”
- Scenarios where-by Walyering 2C are produced our modelled but discounted at 50% given uncertainty. Prospective resources are valued but risked at 10%. Production history and additional drilling will inform whether these volumes can be commercialised.
- The value of Condor is subjective. The un-risked prospect size is very large, however the “chance of success” (CoS) is low at 15%.
- The North Sea royalty interest is assigned nil value, even though there is the potential to generate income in the event the current owner, Finder Energy (ASX: FDR) manages to sell or farm-out a portion of the equity. At this time, we have no reasonable basis for assuming when, or if a deal is done, and if so, on what terms. Thus, any value we might apply now would be highly speculative. This is a worst case/ low case figure
- The Ocean Hill first right of refusal is assigned nil value, which is a worst case/low case outcome. TPD tried to negotiate entry earlier in the year but could not agree terms. Given the potential size and the likely increased confidence the current owner has, it’s possible that STX will not farm-out, and if it did, the terms could be very attractive (to STX) and in our view, likely beyond TPD’s financial capacity.

## Secondary valuation measures

There are a number of ASX listed companies which offer investors “pure play” exposure to gas exploration / appraisal in specific regions and the market valuations for these companies provide a point of reference that is relevant to TPD

In the Perth Basin, there are three other companies active, Strike Energy (STX), Warrego Energy (WGO) and Norwest Energy (NWE). Refer to Exhibit 16. Strike is TPD’s JV partner at Walyering. All these companies have reserves or resources, but none have production, so it is the reserve / resource that is underpinning market value. TPD at 16c per GJ for 2P+2C is materially lower than the Perth Basin peers, and for example, Cooper Energy which is already in production. The lower figure is accentuated by the recent 2C resource booking at Gurvantees. If TPD were re-valued using these peer multiples, the valuation would be greater. A fairly obvious reason for a degree of discount, is that there is a ready and valuable gas market in Perth, where-as on Mongolia the industry is yet to be established.

Exhibit 16 – Perth Basin WA and comparable peers

Ticker	Warrego WGO	Norwest NWE	Strike STX	Talon TPD	Cooper COE
Last	0.18	0.048	0.25	<b>0.17</b>	0.207
Share count	1220	6980	2283	<b>470</b>	2638
Market cap	220	335	571	<b>80</b>	546
Cash	33	22.8	-10	<b>8</b>	-75
<b>EV</b>	<b>187</b>	<b>312</b>	<b>581</b>	<b>72</b>	<b>621</b>
<b>2P+2C</b>	<b>113</b>	<b>200</b>	<b>625</b>	<b>440</b>	<b>460</b>
<b>EV/(2P+2C)- A\$/GJ</b>	<b>1.65</b>	<b>1.56</b>	<b>0.93</b>	<b>0.16</b>	<b>1.35</b>

Source: MST Research

In Mongolia, there are three ASX listed companies, TMK Energy (TMK), Jade Gas Holdings (JGH) and Elixir Energy (EXR). Following on from our previous paragraph, the EV/(2P+2C) multiples for Mongolia are lower, and the same is true in general for CSG explorers in Queensland.

Exhibit 17 –Pure play Mongolian gas exploration companies

Mongolia peers	TMK	JGH	EXR
Shares on issue	3580	1411	912
Price (A\$)	0.02	0.049	0.16
Market cap (A\$M)	72	69	146
Cash	3	6.6	23
EV- A\$M	69	63	123
2C- BCF	813	148	395
<b>EV/2C (A\$/mcf)</b>	<b>0.08</b>	<b>0.42</b>	<b>0.31</b>

Source: MST Research

## Key catalysts

### Walyering

- announcement of binding gas sale agreements & funding for capex to first gas
- successful mechanical completion of the field development late 2022 and
- successful commissioning and gas sales in early 2023

### Gurvantees:

- a go/no-go decision by TPD before Dec 26, to elect to fund Phase2 and thus earn-in to 33%
- progression of the planned Pilot production program with execution likely late Q1 or Q2 2023

### Potential “left field” events (could happen any time)

- STX farms out its prospective “Ocean Hill” well. TPD has first right of refusal
- TPD attracts farm-in partner / funding to advance Condor
- Potential for a take-over or merger. On November 10 2022, Warrego Energy (ASX: WGO) announced it had been approached by its JV partner in the Perth Basin, Strike Energy (ASX: STX) to merge. Strike Energy is TPD’s joint venture partner in the Walyering

## Key risks

### Fossil fuel production

TPD is an oil and gas producer, and in general, “fossil fuel” producers are being vilified in popular press, by populist Governments seeking “green” votes, and by society at large. The collective sentiment is harming investment from retail and institutional investors and deterring commercial banks from lending. Access to capital for exploration and development is increasingly a risk

### Commodity prices and markets

Although TPD has commercialised its gas, markets are competitive and there are others trying to do the same. Ditto in Mongolia, there is risk that TPD’s producible gas is under-bid and unsold.

### HSE

TPD operates in an industry which is considered a high risk, to people engaging in drilling and production. Accidents and injuries are possible and bring reputational, regulatory and financial risks

### Environmental

Accidental gas discharges from production facilities, contamination of surrounding lands from leakage of hydrocarbons and risks common to oil and gas production and expose TPD to regulatory, reputational and financial risk

### Partner

TPD does not operate or manage its interests day-to-day, such activities are designated to the operator, so to an extent, TPD is exposed to the capabilities of its JV operator partners to execute planned activities on time, and budget, safely and in accordance with all environmental standards. In addition, execution of planned activities requires that JV partners can fund their share, and if not, there is risks that planned activity is delayed, deferred or does not occur

### Inflation

Oil & gas industry exploration & development costs are rising rapidly due to equipment, labour and input factor inflation. The is risk to TPD’s exploration & development budgets

## Sovereign

There is a risk that fiscal terms are altered post production, both here and in Mongolia should host Governments seek higher income from fossil fuel production

## Carbon tax

Our forecasts do not factor in a “carbon cost” as at this time, there isn’t a “carbon tax” however its possible that imposts are levied on Co2 emitters including TPD. Elimination of future carbon taxes would require TPD to buy offsets, or sequest (store) the Co2 somewhere, imposing an economic burden that is unquantifiable at this time

## Investor views on China & Mongolia

TPD’s best chance of commercialising large volumes of gas in Mongolia is into China. However, there are geopolitical concerns about Chinese hegemony in the Asia/ Pacific region, which could damage investor sentiment, impact on financing, or result in trade or other sanctions from specific OECD countries

## SWOT

### Strengths

- Predominantly a gas resource owner. Gas becoming “hotter” due to global energy crisis and increasing awareness of its importance in the renewable energy mix, as a transition fuel
- Soon to become a production company generating revenue and cashflow.
- Low cost, and fast cycle, in an industry where exploration-to-production times can be 5-10 years. The cycle time from “E-to-P” at Walyering was comparatively fast, while in Mongolia, from farm-in to advanced exploration has also been impressive compared to typical industry time-times
- Small asset base, but high quality and high potential

### Weaknesses

- TPD does not operate, and is reliant on JV partners for execution
- No “depth” in exploration portfolio, no obvious pipeline of new venture opportunities. TPD will need to seek new exploration & development opportunities for longer term growth.
- It’s a small company in terms of human capital, balance sheet, and asset spread, and this constrains TPD’s ability to consider new projects or vet new venture opportunities.

### Opportunities

- Has significant equity interests in its projects which could be monetised for cash via sale, or farm-out
- Very large, nearby gas markets in China & WA, with potential for significant volume and price growth

### Threats

- License to operate and the increasing challenge to gather finance, find investors, appease “green” shareholders, and argue rationally with climate activists that are campaigning to abolish fossil fuel production.
- Competition for capital. Fortunately, TPD is coming into some cash flow, but its till a small company in a space crowded by oil and gas companies all capital hungry.
- Global recession and a bear market. TPD are at the “risky” end of the share market, and if the market enters a bear phase, then the TPD share price will likely be impacted by the retreat of risk-seeking investors

## ESG considerations and carbon footprint

TPD is a fossil fuel producer, and its core product is natural gas, which is a transition fuel between high CO<sub>2</sub> coal, and zero emission renewables in the total energy mix. In WA, and Mongolia, TPD's gas has the opportunity to reduce emissions by displacing dirtier gas (in WA) and coal (in Mongolia).

The Walyering project has a very low CO<sub>2</sub> footprint due to

- Use of solar arrays and battery storage for on-site power
- The fact that the CO<sub>2</sub> content naturally occurring in the gas is very low and will be part of the sales spec. gas. This means that Scope 1 emissions, such as venting CO<sub>2</sub> to the atmosphere are negligible, while Scope 2 emissions are also very lower than that of competing gas. Operator STX claims the CO<sub>2</sub> per GJ for Walyering gas is 10x lower than “current domestic gas supplies from other WA sources”.
- Mongolia is very keen to establish a gas industry in order to transition away from its existing primary energy mix. The country generates all its power from coal or oil. There is no residential gas reticulation system, so urbanites use coal for heating and cooking. Pollution from air-borne particulates in the capital UlaanBataar is among the worst in the world and the Mongolian Government is very keen to foster a domestic gas industry.

## Board & Management

Talon is a small company and does not operate production assets and accordingly, is staffed with professionals focused on working up and assessing exploration opportunities, in addition to managing commercial and legal activities and running of an ASX listed company

The small Board has depth of experience in the oil & Gas industry

- Colby Hauser, CEO & MD, appointed in March 2022, and brings extensive experience in business development, commercial and corporate, gas sales & marketing, project development and stakeholder engagement. Colby's previous role was General Manager (Commercial) at Strike Energy, the operator of EP447. Colby was the former President of the Petroleum Club of WA (now the Energy Club of WA) and is now a Life Member
- Doug Jendry, Non-Executive Chair. Appointed October 2020. Doug is a geologist with a 40 year career in exploration and commercial activities, with particular experience in the Perth Basin from the early 1980's. Doug has broad public and private company managerial skills and deep experience with capital markets. Notably, Doug was involved in the drilling of Walyering#4 in 2001, thus bringing a rare continuity in learning to the current highly successful outcome.
- David Casey, former MD appointed July 2020, and now NED, has more than 30 years of experience in every facet of oil and gas exploration, and ASX-listed company formation & management with a particular focus in the CSG industry. Notable was David's stewardship of NSW CSG company Eastern Star gas which was eventually monetising Eastern Star Gas for ~\$1B. Currently, David is MD of Qld CSG producer Galilee Energy. David's extensive experience in CSG is value-additive to Talon's involvement in Mongolia. David has a BSc (Hons, Geology) from the University of Sydney.
- Matthew Worner, NED appointed Dec 2017. Matt is an experienced oil and gas executive who has worked with ASX and AIM listed E&P companies in various legal, commercial, and new venture activity roles. He has overseen the completion of multiple asset acquisition and divestments in Asia, Africa, the USA and Australasia, in addition to experience in dealing with JV partners, host Governments and national oil companies (NOC's)

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