Lower 1Q FY21 production reflected planned workovers

HZN reported 1Q21 oil production (HZN share) of 304,600 barrels (bbl), down 7.4% on 4Q20 reflecting planned workovers at both its Chinese and New Zealand (NZ) fields. Post workovers production has lifted to 9,300 barrels of oil per day (bopd) (gross) in China versus 8,646 bopd in 1Q21 and 9,016 bopd in 4Q20. In NZ, production has reverted to 4,500 bopd versus 3,770 bopd in 1Q21 and 4,552 bopd in 4Q20.

We note that an additional workover planned for NZ in early CY2021 is forecast to lift production to ~6,000 bopd.

HZN - Effectively net cash of US$10m

1Q sales of US$8.4m were down on 4Q20 (US$9.3m) reflecting lower production, the current low oil prices, and most importantly no liftings in New Zealand. We note a material lifting occurred in NZ in early October resulting in US$5.1m of proceeds so HZN is currently effectively net cash of ~US$10m. (See Appendix 1 for Quarterly details).

Sale of Papua New Guinea (PNG)

HZN has sold its PNG assets to Arran Energy for US$3.5m subject to any completion adjustments. HZN had the investments on the books at US$5.7m after writing them down in FY20 by US$67.3m. Osaka Gas will be released from its obligations under the 2013 asset sale agreement.

HZN noted that it recognised the PNG asset as a quality resource but believed its ability to realise value in the medium term remained uncertain, thus the decision to move on.

Final investment decision (FID) reached on Beibu development

A FID has been made on the WZ12-8 East project in China (HZN interest 26.95%). The WZ12-8 East project is the first phase of a possible multi-phase development, depending on how successful the initial production is.

The first phase is forecast to recover 0.6 mm bbls (HZN's share). HZN share of the capital costs is ~US$15m. The first production is forecast to be in Q1 2022 at 4,000 bopd.

Valuation

We have updated our valuation reflecting the sale of the PNG assets, lower exploration and operating costs from leaving PNG, and a lower AUDUSD cross rate. Our base case fully diluted valuation for HZN is US$0.11 per share (~A$0.15 at an AUDUSD exchange rate of 0.71) and a forecast Brent oil price of US$65/bbl by FY26.

If we assume a US$75/bbl Brent oil price by FY26 our base case valuation lifts to US$0.14 per share.

HORIZON

Horizon Oil Ltd. is an oil and petroleum exploration, development and production company. It operates through the following segments: New Zealand Development, New Zealand Exploration and China Exploration and Development. The company was founded in 1969 and is headquartered in Woolloomooloo, Australia.

Stock	HZN.ASX
Price	A$0.053
Market cap	A$69m

Company data	
Net cash (Sept. 2020)	A$5.1m
Shares on issue	1,302.0m

Next news	
Late January 2021	2Q21 Production report

HZN Share Price (A$)

Source: FactSet

David Fraser
david.fraser@mstaccess.com.au

Financials

Horizon Oil — **HZN-AU**

Year end 30 June

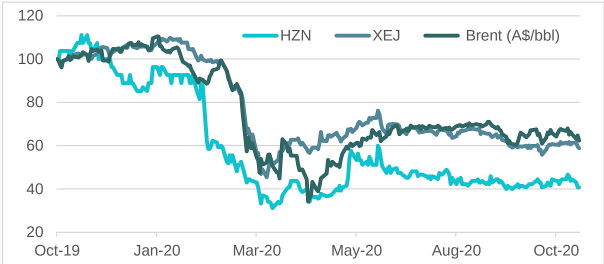
MARKET DATA		
Price	**$**	**0.053**
Price	**US$**	**0.037**
52 week high / low	A$	0.15 - 0.04
Valuation	**A$**	**0.15**
Market capitalisation	A$m	69.0
Shares on issue (basic)	**m**	**1302.0**
Partly paid	m	1.5
Share Appreciation Rights	m	58.2
IMC Options	m	300.0
Other Options	m	0.0
Potential shares on issue (diluted)	**m**	**1661.7**

INVESTMENT FUNDAMENTALS		FY19	FY20	FY21	FY22	FY23
EPS reported	US ¢	2.7	(4.2)	(0.1)	0.4	0.6
EPS reported diluted	US ¢	2.2	(4.2)	(0.1)	0.3	0.5
EPS underlying	**US ¢**	**1.8**	**0.5**	**0.1**	**0.4**	**0.6**
EPS underlying diluted	**US ¢**	**1.4**	**0.5**	**0.1**	**0.3**	**0.5**
P/E reported	**x**	**3.1**	**(1.0)**	**(36.7)**	**9.5**	**6.0**
P/E underlying	**x**	**4.6**	**8.2**	**56.1**	**9.5**	**6.0**
P/E underlying (diluted)	**x**	**5.8**	**8.2**	**69.1**	**11.7**	**7.4**
Dividend	**A ¢**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
Payout ratio	%	0.0%	0.0%	0.0%	0.0%	0.0%
Yield (Y/E/ spot)	**%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**
Franking	%	0.0%	0.0%	0.0%	0.0%	0.0%
Gross Yield (Y/E/ spot)	**%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**
Book value / share	US ¢	10.8	6.4	6.5	6.7	7.1
Price to book (NAV)	**x**	**1.1**	**1.0**	**0.8**	**0.8**	**0.7**
NTA / share	US ¢	10.8	6.4	6.5	6.7	7.1
Price to NTA	**x**	**1.1**	**1.0**	**0.8**	**0.8**	**0.7**
Year end shares	**m**	**1,303**	**1,303**	**1,303**	**1,303**	**1,303**
Average diluted shares	m	1,654	1,303	1,603	1,603	1,603
Year end share price	A$	0.120	0.061	0.053	0.053	0.053
Year end share price	US$	0.084	0.042	0.037	0.037	0.037
Market cap (Y/E / Spot)	US$m	109.7	54.8	48.8	48.8	48.8
Net debt /(cash)	**US$m**	**26.3**	**(1.6)**	**(29.3)**	**(53.0)**	**(80.6)**
Enterprise value	**US$m**	**136.1**	**53.2**	**19.5**	**(4.2)**	**(31.8)**
EV/EBITDAX	**x**	**1.5**	**1.1**	**0.6**	**(0.1)**	**(0.7)**
Gearing (net debt / EBITDAX)	**x**	**0.3**	**(0.0)**	**(1.0)**	**(1.5)**	**(2.1)**
Free cash flow	**US$m**	**62.6**	**28.7**	**27.7**	**23.7**	**27.6**
Free cash flow per share	US ¢	4.8	2.2	2.1	1.8	2.1
Price to free cash flow	**x**	**1.8**	**1.9**	**1.8**	**2.1**	**1.8**
Free cash flow yield	**%**	**57%**	**52%**	**57%**	**48%**	**56%**

DIVISIONAL	FY19	FY20	FY21	FY22	FY23
Brent Oil price forecast (US$)	69.1	52.3	46.4	53.1	56.4
HZN Crude Oil Production ('000 bbls)					
China (Beibu Gulf)	1,002	908	903	889	916
New Zealand (Maari)	602	568	427	475	427
Total ('000 bbls)	**1,605**	**1,476**	**1,330**	**1,364**	**1,343**

Valuation			
US$m	**Low**	**Base**	**High**
China (Beibu Gulf) (FY21 NPV @ 12%, 10%, 8%)	137	148	161
New Zealand (Maari) (FY21 NPV @ 12%, 10%, 8%)	28	33	31
Corporate Costs Allocation	(44)	(44)	(44)
Option Exercise	13	13	13
Enterprise Value	**134**	**150**	**161**
Net Debt / (Cash) (FY21)	(29)	(29)	(29)
Equity	**163**	**179**	**190**
Diluted Shares on Issue	1,657	1,662	1,664
Per Share US$	0.10	0.11	0.11
AUDUSD	0.71	0.71	0.71
Per Share A$	**0.14**	**0.15**	**0.16**

HZN 12 month relative versus S&P/ASX 200 Energy Index & Brent Oil A$/bbl



PROFIT AND LOSS (US$m)	FY19	FY20	FY21	FY22	FY23
Sales post hedging	**122.4**	**84.0**	**61.1**	**72.0**	**75.1**
Other income	4.4	0.0	0.0	0.0	0.0
Total Income	**126.8**	**84.0**	**61.1**	**72.0**	**75.1**
Operating costs	(38.4)	(38.5)	(32.8)	(36.4)	(36.8)
EBITDAX	**93.0**	**50.6**	**32.3**	**42.7**	**45.4**
Exploration expenditure	(4.6)	(5.0)	(4.0)	(7.1)	(7.1)
EBITDA	**88.4**	**45.5**	**28.3**	**35.6**	**38.3**
Depreciation & Amortisation	(39.4)	(26.7)	(24.0)	(24.6)	(24.2)
EBIT	49.0	18.8	4.4	11.0	14.1
Net interest	(11.7)	(3.8)	(2.1)	(1.0)	0.1
Pretax Profit	**37.3**	**15.0**	**2.2**	**10.0**	**14.2**
New Zealand Royalties	(1.7)	(2.9)	(0.5)	(1.4)	(1.4)
Tax expense (30%)	(11.7)	(5.4)	(0.8)	(3.4)	(4.7)
NPAT (underlying)	**23.9**	**6.7**	**0.9**	**5.1**	**8.1**
Impairments / Other	11.9	(61.8)	(2.2)	0.0	0.0
Reported NPAT	**35.8**	**(55.1)**	**(1.3)**	**5.1**	**8.1**

BALANCE SHEET (US$m)	FY19	FY20	FY21	FY22	FY23
Cash	21.5	25.9	41.4	53.0	80.6
Receivables	8.1	7.9	5.8	6.8	7.1
Inventory	5.5	3.5	2.5	3.0	3.1
Other	4.3	1.4	1.4	1.4	1.4
Current assets	**39.4**	**38.8**	**51.1**	**64.2**	**92.2**
Exploration phase expenditure	56.9	8.2	8.2	8.2	8.2
Oil and Gas assets	157.4	116.7	97.1	79.8	63.0
Other	8.9	7.9	7.7	7.5	7.2
Non current assets	**223.2**	**132.9**	**113.0**	**95.5**	**78.4**
Total Assets	**262.7**	**171.6**	**164.1**	**159.7**	**170.6**
Accounts Payable	11.5	6.9	5.9	6.0	6.1
Borrowings	9.5	12.2	0.0	0.0	0.0
Other	4.5	4.3	4.3	4.3	4.3
Current liabilities	**25.5**	**23.4**	**10.2**	**10.3**	**10.4**
Borrowings	38.3	12.1	12.1	0.0	0.0
Provisions	29.0	34.0	37.3	41.1	45.2
Other	28.5	19.3	20.3	21.3	22.4
Non current liabilities	**95.8**	**65.4**	**69.7**	**62.4**	**67.6**
Total Liabilities	**121.4**	**88.8**	**79.9**	**72.7**	**78.0**
Equity	174.8	174.8	174.8	174.8	174.8
Retained earnings	(49.4)	(104.5)	(105.9)	(100.7)	(92.6)
Reserves / Other	15.9	12.6	15.3	12.9	10.5
Total equity	**141.3**	**82.9**	**84.2**	**87.0**	**92.6**

CASH FLOW (US$m)	FY19	FY20	FY21	FY22	FY23
EBITDAX	**93.0**	**50.6**	**32.3**	**42.7**	**45.4**
Change in working capital	(0.0)	0.9	2.8	(0.8)	0.3
Net interest	(6.5)	(3.4)	(1.9)	(0.9)	0.1
Royalties & Tax paid	(13.7)	(11.3)	(0.9)	(3.1)	(3.9)
Other	0.0	0.0	0.0	0.0	0.0
Operating cash flow	**72.8**	**36.7**	**32.3**	**37.9**	**41.8**
Capital expenditure	(10.2)	(8.1)	(8.1)	(14.3)	(14.3)
Net investment / Other	0.0	0.0	3.5	0.0	0.0
Investing cash flow	**(10.2)**	**(8.1)**	**(4.6)**	**(14.3)**	**(14.3)**
Change in Equity	0.0	0.0	0.0	0.0	0.0
Increase / (decrease) in borrowings	(66.8)	(24.0)	(12.2)	(12.1)	0.0
Dividend / other	(1.9)	(0.2)	0.0	0.0	0.0
Financing cash flow	**(68.7)**	**(24.2)**	**(12.2)**	**(12.1)**	**0.0**
Change in Cash / FX	(6.2)	4.4	15.5	11.6	27.6

Source: Company, MST Access

Investment Thesis

Horizon Oil (HZN) owns a 26% stake in the Maari and Manaia development in New Zealand. The Maari and Manaia producing oil fields are located in the Taranaki Basin in the Tasman Sea, 80km offshore the Taranaki coast in approximately 100m of water. HZN's joint venture partners are OMV New Zealand (69%) (currently being sold to Jadestone Energy [JSE-LON, Not Covered]) and Cue Energy (5%). OMV New Zealand currently operates the field.

In China it owns a 26.95% production stake in Block 22/12 in the Beibu Gulf with a 55% stake in exploration. First production from Block 22/12 occurred in 2013 from the Weizhou 6-12 and Weizhou 12-8 oil fields. Near-field exploration and appraisal opportunities provide upside potential to our production forecasts. China National Offshore Oil Corporation (CNOOC) operates the producing fields.

Following recent developments, HZN has refocused and has committed to four key priorities being:

- To ensure the safety of its people and enhance the communities it operates in while caring for the environment,
- to optimise the production and minimise operating costs at its two producing assets,
- to pursue value accretive growth from its existing assets, complemented by acquiring complementary assets, and
- to look to partner with similar high performing experienced operators to pursue value enhancing investments.

The strong free cash flow generation nature of its assets has allowed HZN to pay down over US$130m of senior debt facilities over the last five years. HZN is now in a net cash position ($5.1m). Given the forecast production profiles of the two producing assets, we are forecasting that HZN will average ~US$40m of EBITDAX over the next three years despite a relatively conservative oil price deck.

Noting FY21 income is forecast to be lower given the current depressed Brent crude oil price (US$39.64/bbl). We are forecasting average free cash flow of ~US$25m over the next three years. Based on our forecasts HZN will have net cash of ~US$30m at the end of FY21 lifting to ~US$80m by the end of FY23.

In our view this puts HZN in a strong position to pursue value enhancing opportunities.

We are therefore confident that HZN is well positioned to execute on its strategic priority to both pursue value accretive growth from its existing assets and, acquire complementary assets as well as partner with similar high performing experienced operators to pursue value enhancing investments.

Potential near-term catalysts

- We forecast increased production out of China following a multi-well workover program followed by an infill drilling program later in CY2020. The final investment decision (FID) has now been made for the WZ 12-8E development in China. There is the potential for an additional seven-eight wells to target oil pockets that are unable to be accessed from existing facilities. We expect longer term, increased production and reserves from Block 22/12, China, given the potential for future appraisal and infill wells.
- In New Zealand we expect completion (by early CY2021) of the change of ownership at Maari from OMV to Jadestone Energy (JSE). Currently JSE is waiting on the final New Zealand Petroleum and Minerals (NZPAM) approval. JSE has already received New Zealand Overseas Investment Office approval. This has the potential to lead to a reduction in fixed operating costs at Maari once JSE Energy takes over the operation of the field from OMV.
- JSE has also made it clear in its releases that it will look to pursue enhanced recovery at Maari given JSE's forecast upside from production enhancements. There is the potential for a lift in Maari's 2P reserves based on JSE's reserve audit at acquisition. JSE has also mooted the potential for infill production from the Manaia Mangahewa reservoir. Potential additional oil production from a Manaia Moki development also has been proposed by JSE.

Horizon Oil overview

Horizon Oil ltd. (HZN) is an oil and petroleum exploration, development and production company. It operates through the following segments:

- New Zealand Exploration, Development and Production,
- China Exploration, Development and Production, and

The New Zealand Production segment produces crude oil from the Maari/Manaia fields, which are located in the offshore Taranaki Basin, New Zealand. The New Zealand Exploration segment is involved in the exploration and evaluation of hydrocarbons in one offshore permit area, PMP 38160 Maari/Manaia.

The China Exploration and Development segment engages in the Block 22/12 - WZ6-12 and WZ12-8W oil field development and in the exploration and evaluation of hydrocarbons within Block 22/12.

The company was founded in 1969 (old Bligh Oil) and is headquartered in Woolloomooloo, Australia.

Strategy

HZN's strategy is to maintain steady production from its producing fields in China and New Zealand over the medium term. This will be achieved with continuing well workovers and the optimisation of production systems.

Staged development of the WZ 12-8E in China and associated oil accumulations in China is important to achieving this goal. This is forecast to generate HZN strong free cash over the next two-three years resulting in HZN being in a net cash position of ~US$80m by FY23.

Risks

Key risks to our forecasts and valuation include:

- Oil price risk
- Foreign exchange rate to impacting New Zealand operation costs and Australian dollar valuation
- Production forecasts from existing operations
- Process equipment failure
- Regulatory changes impacting royalty and tax rates and abandonment requirements
- Operating cost appreciation
- Sovereign risk associated with owning and operating assets in international arenas
- Future investment failing to meet financial and operational targets including acquisitions, exploration, development and production capital expenditure, forecast production profiles etc
- Interest rates impacting any future financing and discount rate used in valuation

Operating asset overviews, financial forecasts and valuations

Key to any oil and gas company financial forecasting is the oil price assumption.

Oil Price Assumptions

Post short term hedging we have used consensus Brent Oil forward forecasts (Source: FactSet) to derive our forward oil price assumptions for the two operating assets out to FY25 and have then assumed the Brent Oil price appreciates up to US$65/bbl in FY26 and remains constant going forward.

HZN currently has ~180,000 bbls hedged out to the end of 3Q FY21 at ~US$43/bbl.

For sensitivity analysis we have run two scenarios (see Valuation section) where we assume the Brent oil price appreciates to either US$55/bbl (Bear case) or US$75/bbl (Bull case) by FY26.

Figure 1 – MST Brent Oil price forecasts

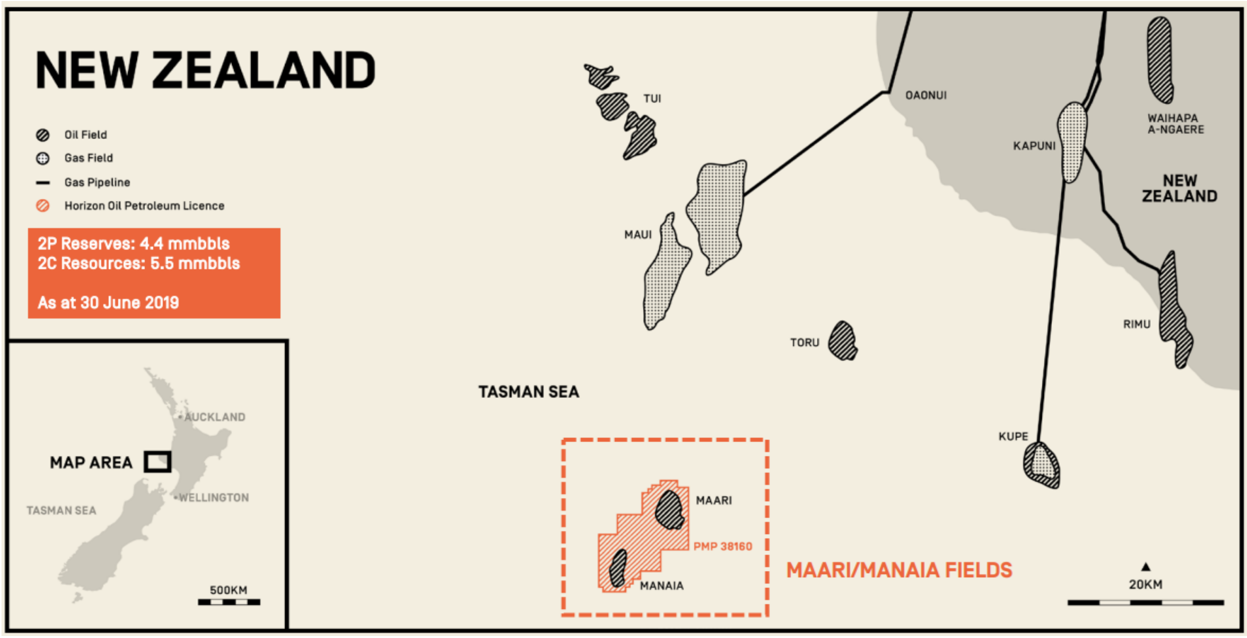
US$/bbl	Jun-20	Jun-21	Jun-22	Jun-23	Jun-24	Jun-25	Jun-26	Jun-27	Jun-28
Brent oil price / forecast	**52**	**46**	**53**	**56**	**58**	**59**	**65**	**65**	**65**
Base case	**52**	**46**	**53**	**56**	**58**	**59**	**65**	**65**	**65**
Bull scenario	52	56	63	66	68	69	75	75	75
Bear scenario	52	36	43	46	48	49	55	55	55

Source: FactSet, MST Access

New Zealand - Maari and Manaia

HZN increased its ownership in license PMP 38160 (Maari) from 10% of 26% by buying 16% off Todd Energy in May 2019 for US$17.6m (implied valuation for 100% of US$110m). Remaining ownership of the fields is OMV (69%) (to be acquired by Jadestone Energy once NZPAM approval given) and Cue Taranaki (5%).

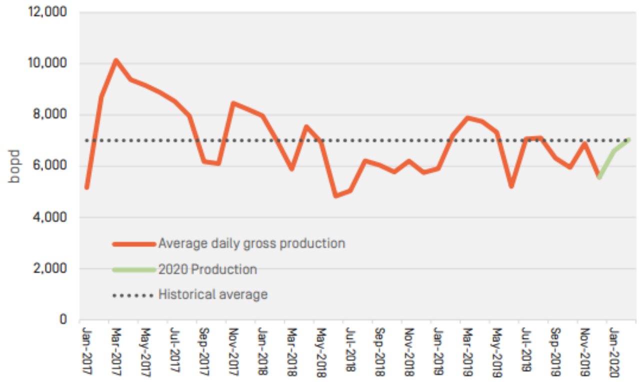
Figure 2 – Horizon Oil New Zealand licenses and operations



Source: Company

Annual gross production from the field has ranged from ~2.2 mm bbls to 2.9mm bbls over the last five years with gross production in FY20 of ~2.2mm bbls. Given its location to demand and the set-up of the refineries sourcing the production, the crude typically sells at a premium to Brent (~US$3/bbl since FY16, US$4/bbl in FY20).

Figure 3 – Maari / Manaia gross production has averaged ~7,000 bbls oil per day (bopd)



	Annual Gross Production, mmbbls	Average Daily Gross Production, bopd
CY 2017	2.94	8,064
CY 2018	2.28	6,256
CY 2019	2.44	6,675
Average	**2.55**	**6,998**

- Current gross daily production rate approx. 7,000 bopd – in line with average historical daily production rate over the last 3 years.
- Overall production decline rate reduced through continued water injection and production optimizing well workovers.
- Potential new operator targeting long term maintenance of production levels, operating cost reductions and field life extension to 2031 and beyond.

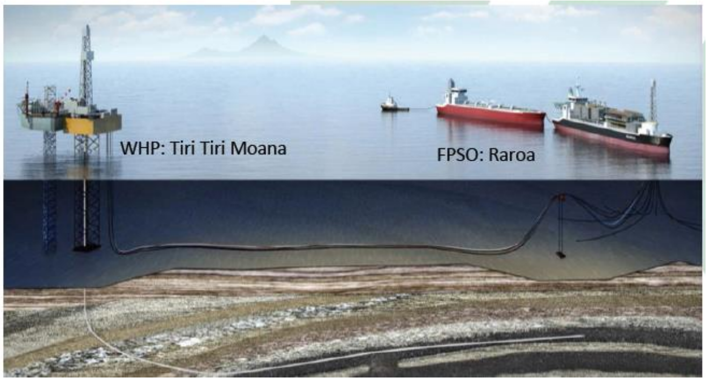
Source: Company

As at 30 June 2019, HZN's net 1P developed liquid reserves at Maari were 1.9 mm bbls with net 2P developed liquid reserves of 4.4 mm bbls.

In Jadestone Energy's acquisition presentation it stated its Maari forecast net 2P reserves were 13.9 mm bbls implying a gross reserve of 20.1 mm bbls or net 5.2 mm bbls for HZN's share; i.e. an 18% lift.

Figure 4 – Maari / Manaia facilities overview

- **Wells connected to the Tiri Tiri Moana jack-up wellhead platform**
  - **9 producers (8 Maari, 1 Manaia field), 2 injectors (Maari field)**
  - **Permanent integrated workover rig**
  - **Approximately 100 metres water depth**
- **Processing and storage of crude oil at the Raroa FPSO**
  - **Montara's sister ship (Keppel conversion, 2008)**
  - **40,000 bbls/day processing capacity**
  - **600,000 bbls oil storage**
- **Cost efficient future decommissioning**



Source: Company

Maari Forecasts and Valuation

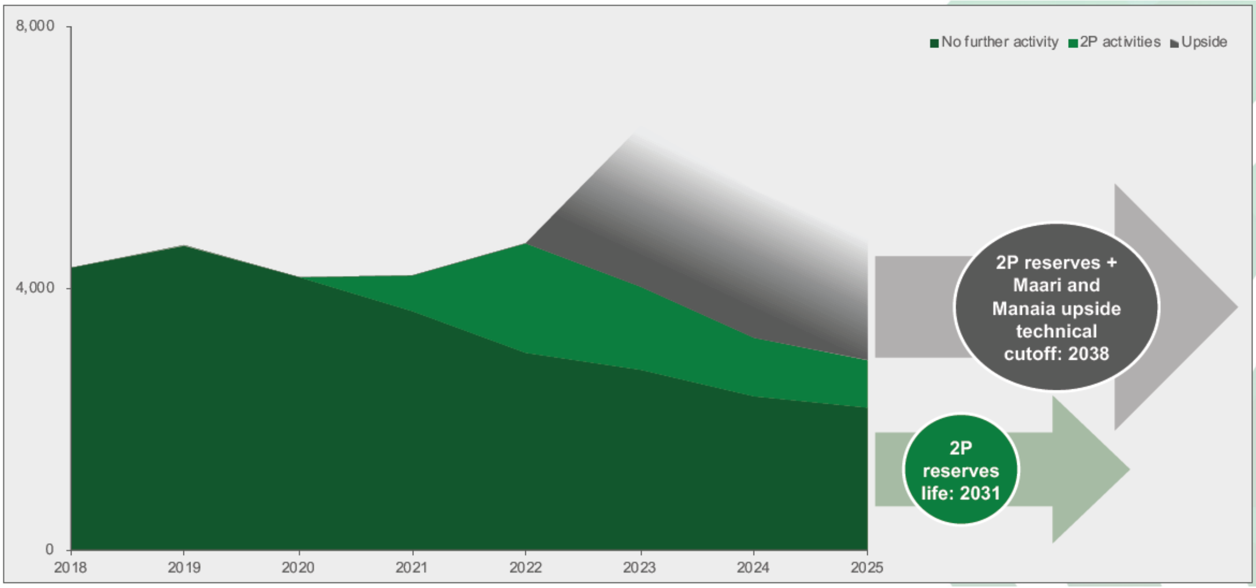
We table below our forecast assumptions for the Maari production and financials.

Key assumptions used in our forecasts:

- Oil price received for Maari crude to continue to earn an US$4.00 premium to Brent
- Gross production of ~4,500 bopd in FY21, lifting to 5,000 bopd in FY22 (post the early CY2021 workover well then declining out to FY28 at 10% per annum. We note that JSE has a 2P reserve production life out to 2031 built into its acquisition assumptions presumably largely reflecting its higher 2P reserves noted above. We also table below JSE's forecast 2P reserve production profile which has gross production lifting to ~6,500 barrels oil per day (bopd) in FY22 versus MST's assumed 5,000 bopd.

We are comfortable using our forecasts until the Jadestone Energy acquisition completes and we get a better understanding of what the future production profile may look like.

Figure 5 – Jadestone Energy forecast production (net) at Maari significantly higher than MST forecast



Source: MST Access, Company

- We are forecasting a small drop off in fixed operating costs over the next two years on the basis that JSE achieve approval on its acquisition of OMV's stake and reduce the forecast costs as proposed in its acquisition releases.

Figure 6 – Maari production, oil pricing and cost forecasts

US$m	FY18	FY19	FY20	FY21	FY22	FY23	FY24
HZN share	14%	26%	26%	26%	26%	26%	26%
Crude Oil Production ('000 bbls) Gross	**2,605**	**2,317**	**2,183**	**1,643**	**1,825**	**1,643**	**1,482**
Crude Oil Gross Production (bopd)	7,136	6,348	5,982	4,500	5,000	4,500	4,050
Crude Oil Production ('000 bbls) (HZN)	**454**	**602**	**568**	**427**	**475**	**427**	**385**
Crude Oil Production (bopd) (HZN)	1,244	1,650	1,555	1,170	1,300	1,170	1,056
Crude Oil Sales ('000 bbls)	**480**	**576**	**594**	**427**	**475**	**427**	**385**
Brent	**63.9**	**69.1**	**52.3**	**46.4**	**53.1**	**56.4**	**57.9**
Premium to Brent	4.3	2.3	4.1	4.1	4.1	4.1	4.1
US$/bbl (realised excluding hedging)	**68.2**	**71.4**	**56.5**	**50.5**	**57.2**	**60.5**	**62.0**
Gross operating costs (US$m)	86.9	71.6	51.6	49.0	47.6	46.4	45.2
Fixed operating costs			40.0	39.9	37.1	36.6	35.9
Variable operating costs			11.6	9.1	10.5	9.8	9.2
Cash operating costs (production) / bbl	**26.8**	**30.9**	**23.6**	**24.0**	**24.3**	**24.7**	**25.1**

Source: MST Access, Company

- Ad valorem royalty (AVR) of 5% on net sales revenue
- Accounting profits royalty (APR) based on 20% of revenue less operating expenses and capital expenditure
- New Zealand corporate tax of 28% (NB: AVR and APR are tax deductible expenses)

Figure 7 – Maari asset forecast profit and loss

US$m	FY18	FY19	FY20	FY21	FY22	FY23	FY24
Revenue	**32.7**	**41.2**	**33.6**	**21.6**	**27.2**	**25.8**	**23.9**
Operating expenses	(12.2)	(18.6)	(13.4)	(12.7)	(12.4)	(12.1)	(11.7)
Workover expenditure / Other	(1.2)	0.0	(1.0)	(0.9)	(0.8)	(0.7)	(0.5)
Net operating cash flow	**19.3**	**22.5**	**19.1**	**7.9**	**14.0**	**13.1**	**11.6**
Inventory adjustment	(1.6)	1.8	(1.1)	0.0	0.0	0.0	0.0
Exploration & Development (Cash)	(4.7)	(1.7)	(1.3)	(2.0)	(4.0)	(4.0)	(2.0)
Depreciation and Amortisation	(10.4)	(18.0)	(10.8)	(8.1)	(9.0)	(8.1)	(7.3)
EBIT	**2.6**	**4.5**	**5.9**	**(2.2)**	**1.0**	**1.0**	**2.3**
Net interest	(0.4)	2.3	0.0	0.0	0.0	0.0	0.0
PBT	**2.2**	**6.8**	**5.9**	**(2.2)**	**1.0**	**1.0**	**2.3**
NZ Royalties (AVR & APR)	(0.9)	(1.7)	(2.7)	(0.5)	(1.4)	(1.4)	(1.5)
Tax	(0.5)	(0.8)	(0.9)	0.0	0.0	0.0	(0.2)

Source: MST Access, Company

- Our asset model assumes production out to FY28 when we assume the site is abandoned. We believe this is likely to prove highly conservative given we would expect the field to continue producing long after this date depending on economics at the time.
- Forecast gross capex of ~$11m - $12m in FY21 lifting in FY22 and FY23 before declining out to FY28 and then a gross abandonment cost of ~$100m in FY28. We note that given HZN has been paying tax and royalties in New Zealand since it acquired it 's stake in Maari it is entitled to a tax credit at abandonment. This amounts to 20% of royalties paid and 28% of income tax paid which at this stage will effectively result in a net reduction in the cash abandonment cost of 40%. Thus, HZN's share of US$100m is ~US$26m less 40% equating to ~US$16m.

Valuation

We table below the forecast cash flows for our US$ NPV_{10} valuation for HZN's 26% stake in Maari.

Figure 8 – Maari Forecast US$ NPV_{10}

Cashflow	FY21	FY22	FY23	FY24	FY25	FY26	FY27	FY28
Net operating cash flow	7.9	14.0	13.1	11.6	10.2	10.3	8.8	7.5
Tax & Royalties	(0.5)	(1.4)	(1.4)	(1.7)	(1.6)	(2.1)	(1.7)	1.9
Exploration & Capex	(2.0)	(4.0)	(4.0)	(2.0)	(1.5)	(1.1)	(0.8)	(16.0)
Free Cash flow	**5.4**	**8.6**	**7.8**	**7.9**	**7.1**	**7.1**	**6.2**	**(6.7)**
FCF Timing Factor	0.7	1.7	2.7	3.7	4.7	5.7	6.7	7.7
Discount Factor	1.1	1.2	1.3	1.4	1.6	1.7	1.9	2.1
Discounted FCF	**5.1**	**7.3**	**6.0**	**5.6**	**4.5**	**4.1**	**3.3**	**(3.2)**
NPV_{10}	**33**	**28**	**20**	**14**	**9**	**4**	**0**	**(3)**

Source: MST Access, Company

JSE paid US$50m for a 69% stake in November 2019, implying a gross value of US$72m, or US$19m for 26%.

At the time JSE stated its NPV_{10} 2P valuation for its stake was US$180m, implying a gross value of US$261m, or US$68m for 26%. Our valuation is therefore below the midpoint (US$44m) of what JSE paid and what JSE values it at.

At acquisition JSE forecast over US$150m (gross US$217m) of free cash flow from Maari over the next five years, implying HZN's share is US$56m. Our forecast is US$37m.

China - Beibu Gulf

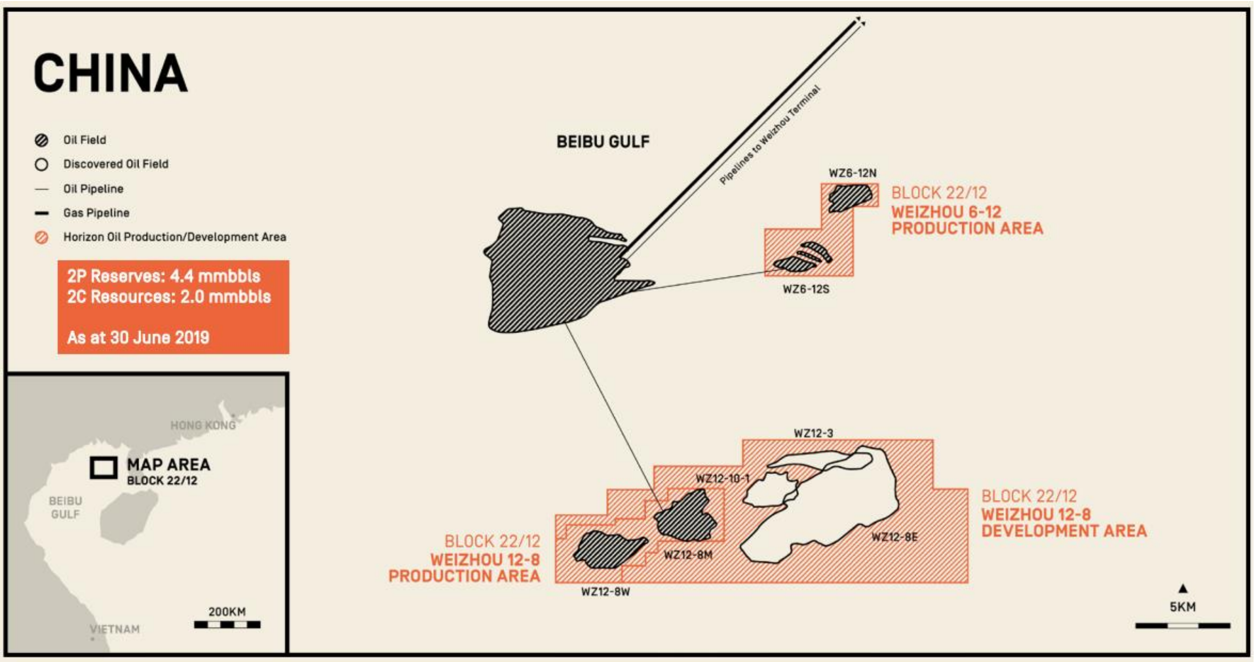
HZN owns a 26.95% production stake in Block 22/12 in the Beibu Gulf with a 55% stake in exploration.

Block 22/12 was initially awarded to Bligh Oil which became Horizon Oil in November 2002. Roc Oil farmed into the Block in 2002 to drill the WZ 6-12-1 well and also undertook operatorship.

Following the discoveries at WZ 6-12-1 and WZ 6-12 South in 2006, HZN and its co-venturers commenced formulating the development for these and the previously discovered WZ 12-8 West in consultation with the China National Offshore Oil Corporation (CNOOC).

First production from Block 22/12 occurred in 2013 from the Weizhou 6-12 and Weizhou 12-8 oil fields. Near-field exploration and appraisal opportunities provide upside potential to our production forecasts. China National Offshore Oil Corporation (CNOOC) operates the producing fields.

Figure 9 – HZN China licenses and operations



Source: Company

HZN has a 26.95% working interest in the four producing fields of WZ 6-12N, WZ 6-12S, WZ 12-8W and WZ 12-8M (previously WZ 12-10-2) in Block 22/12, Beibu Gulf, People's Republic of China. (Other owners are CNOOC 51%, Fosun 19.6% (acquirer of Roc) and Majuko Corp, 2.45%)

HZN holds a 55% working interest in the exploration prospects and undeveloped fields in Block 22/12, including the undeveloped WZ 12-8E oil accumulation.

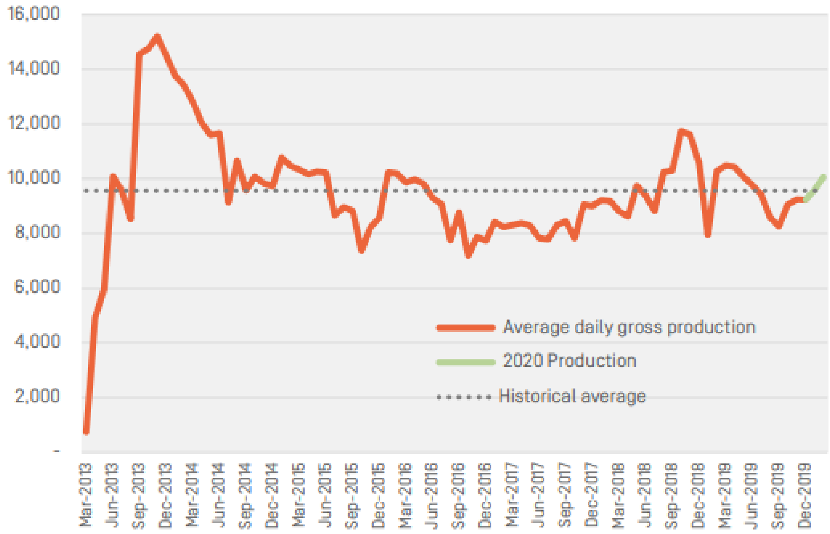
HZN's sales in FY20 included the last preferential cost recovery oil entitlement (HZN and other non-operator participants were entitled to cost recovery of exploration and development costs once CNOOC had recovered all of its exploration and development costs) on in the September 2019 quarter, was 833,000 bbl, achieving an average price of US$49.7/bbl (before hedging) and resulted in revenue of US$41m.

As at FY19 gross 2P reserves were 16.3 mm bbl with a 2C resource of 7.4 mm bbl.

Cumulative gross production from the Block 22/12 fields since first oil to 30 June 2020 has been over 25 mm bbls.

In FY20 gross annual production from Block 22/12 was 3.37 mm bbl (HZN share 908,000 bbl) with an average production per day of 9,230 bopd. We note that the average production since first oil has been ~9,600 bopd (See Figure 10).

Figure 10 – HZN China licenses and operations



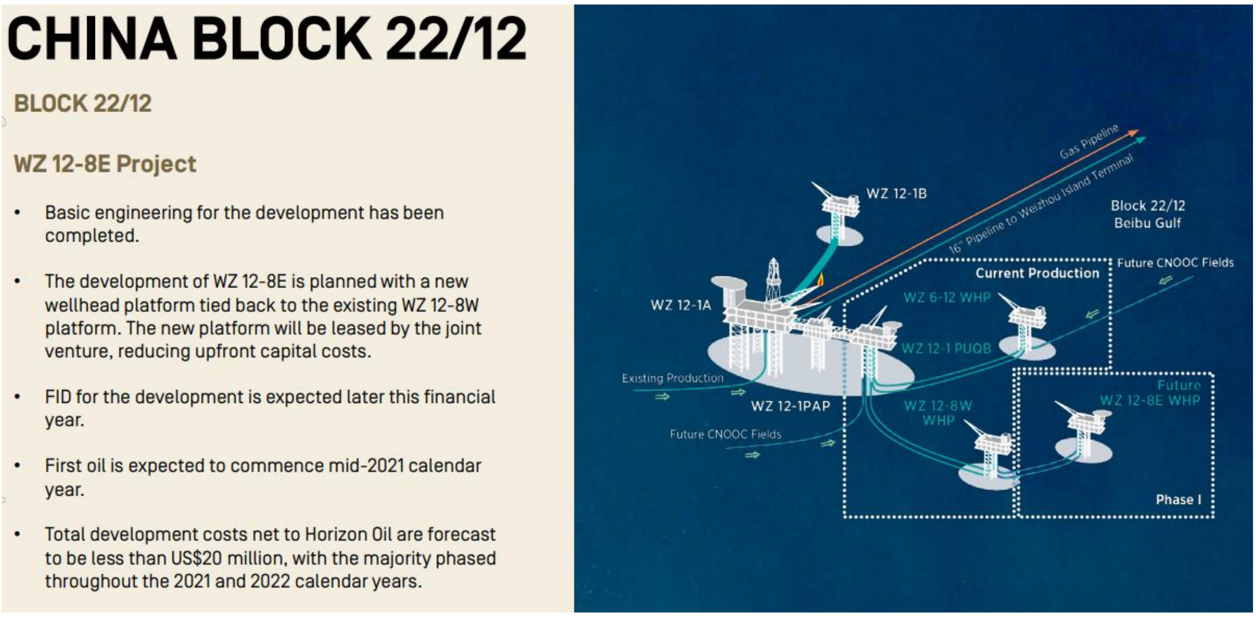
	Annual Gross Production, mmbbls	Average Daily Gross Production, bopd
CY 2013	3.02	9,882
CY 2014	4.08	11,194
CY 2015	3.43	9,404
CY 2016	3.28	8,981
CY 2017	3.04	8,326
CY 2018	3.60	9,857
CY 2019	3.43	9,399
Average	**3.41**	**9,570**

Source: Company

Development work

HZN and its partners have reached FID on the WZ 12-8E development. The development of the 11.1 mm bbl gross recoverable resource (HZN net working interest share at 26.95%, following CNOOC back-in) is planned as a phased development with the initial three wells being drilled from a leased platform, to be tied back to the existing Block 22/12 infrastructure.

Figure 11 – Beibu proposed tie back of WZ 12-8E to existing infrastructure



Source: Company

The development has been planned as an extended production test with a leased mobile offshore production platform. Initial costs to HZN of US$2m in CY2020 with an additional US$15m of capital costs to be incurred in CY2021 and CY2022 with first production expected in early CY2022.

Beibu Forecasts and Valuation

We table below our forecast assumptions for the Beibu production and financials.

Key assumptions used in our forecasts:

- Oil price received for Beibu crude includes a US$3.00 discount (given its high viscosity)
- Value added tax (VAT) of 5% on sales revenue noting the VAT is not paid in cash but offset against Horizons sales volume entitlement prior to billing for each sale.
- Windfall levies on higher oil prices earned (20% above US$65/bbl, 25% above US$70/bbl and 30% above US$75/bbl)
- Corporate tax of 25% (NB: VAT and oil price levy tax deductible expenses)
- Model assumes production in Figure 14 below. Gross production to ramp up to ~9,300 bopd in FY23 and then to decline at an average decline rate of ~9% per annum. This is likely to prove unduly conservative given historic production rates.

Figure 12 – Beibu production profile, oil pricing and cost forecasts

US$m	FY18	FY19	FY20	FY21	FY22	FY23	FY24
HZN share	26.95%	26.95%	26.95%	26.95%	26.95%	26.95%	26.95%
Crude Oil Production ('000 bbls) Gross	**3,204**	**3,719**	**3,369**	**3,350**	**3,300**	**3,400**	**3,094**
Decline	*8%*	*16%*	*(9%)*	*(1%)*	*(1%)*	*3%*	*(9%)*
Crude Oil Gross Production (bopd)	8,779	10,188	9,230	9,178	9,041	9,315	8,477
HZN Crude Oil Production (bopd)	2,366	2,746	2,487	2,473	2,437	2,510	2,284
Crude Oil Production ('000 bbls) (HZN)	**864**	**1,002**	**908**	**903**	**889**	**916**	**834**
Crude Oil Sales ('000 bbls)	**1,170**	**1,291**	**833**	**903**	**889**	**916**	**834**
Oil Price assumption (Brent)	**64**	**69**	**52**	**46**	**53**	**56**	**58**
Discount for Crude quality	(1)	(3)	(3)	(3)	(3)	(3)	(3)
US$/bbl (excl. hedging)	**63**	**66**	**50**	**44**	**50**	**54**	**55**
Fixed operating costs	**20**	**20**	**20**	**22**	**24**	**25**	**25**
Variable operating costs	**12**	**17**	**13**	**13**	**14**	**15**	**14**
Variable operating costs/bbl	**3.6**	**4.5**	**3.7**	**4.0**	**4.3**	**4.5**	**4.6**
Gross operating costs	**32**	**37**	**33**	**35**	**38**	**40**	**39**
Total cash operating costs (production) / bbl	10	10	10	11	12	12	13

Source: MST Access, Company

- HZN saw a reduction in the fixed operating tariff from US$4.75/bbl in Q1 2017 to the current US$0.50/bbl as the production milestone of 13.9 mm bbls had been met. As a result, total tariffs now for the pipeline, water handling and oil stabilisation funding is set at ~US$0.90/bbl.
- Gross workover expenditure of US$7m-US$8m every two years. For modelling, we have assumed US$4m per annum post the forecast capex associated with the WZ 12-8E production test.
- For the WZ 12-8E production test HZN forecast the initial costs to HZN of US$2m in CY2020 with an additional US$15m of capital costs to be incurred in CY2021 and CY2022 with first production expected in early CY2022.
- We note that the expenditure associated with the production test will flex with the prevalent oil price. At US$35/bbl, HZN's capital cost is forecast to be circa US$11m with a capital cost of US$20m at US$65/bbl.

Figure 13 – Beibu financial forecasts

US$m	FY18	FY19	FY20	FY21	FY22	FY23	FY24
Revenue	**73**	**86**	**41**	**39**	**45**	**49**	**46**
Operating expenses	(9)	(10)	(9)	(10)	(10)	(11)	(11)
Workover expenditure	(3)	(1)	(2)	(2)	(2)	(2)	(2)
Net operating cash flow	**62**	**75**	**31**	**28**	**33**	**37**	**34**
Exploration & Development (Cash)	(4)	(5)	(2)	(3)	(8)	(8)	(4)
Depreciation and Amortisation	(19)	(21)	(16)	(15)	(15)	(16)	(14)
EBIT	**39**	**49**	**13**	**10**	**10**	**14**	**16**
Net interest	(11)	(13)	(4)	(2)	(1)	0	0
PBT	**28**	**36**	**9**	**8**	**9**	**14**	**16**
Tax	(7)	(9)	(2)	(2)	(2)	(3)	(4)

Source: MST Access, Company

HZN Beibu Valuation

We table below the forecast cash flows for our NPV_{10} valuation for HZN's 26.95% stake in Beibu.

Figure 14 – Beibu Forecast US$ NPV_{10}

Cashflow	FY21	FY22	FY23	FY24	FY25	FY26	FY27	FY28
Net operating cash flow	28	33	37	34	31	31	27	23
Tax & Royalties	(2)	(2)	(3)	(4)	(4)	(4)	(3)	(2)
Exploration & Development capex	(3)	(8)	(8)	(4)	(4)	(4)	(4)	(4)
Free Cash flow	**23**	**23**	**26**	**26**	**24**	**23**	**20**	**17**
FCF Timing Factor	0.7	1.7	2.7	3.7	4.7	5.7	6.7	7.7
Discount Factor	1.1	1.2	1.3	1.4	1.6	1.7	1.9	2.1
Discounted FCF	**22**	**20**	**20**	**18**	**15**	**14**	**11**	**8**
NPV_{10}	**148**	**126**	**107**	**86**	**68**	**53**	**39**	**29**

Source: MST Access, Company

Horizon Oil Group Financial Forecasts

HZN produced 1.48 mm bbls of oil in FY20 with sales of 1.43 mm bbls at an average price of US$58.86/bbl, inclusive of hedging.

Figure 18 – Total Horizon Oil Forecast Production and Sales

US$m	FY18	FY19	FY20	FY21	FY22	FY23	FY24
Maari & Manaia	454	602	568	427	475	427	385
Beibu	864	1,002	908	903	889	916	834
Total Production ('000 bbls)	**1,318**	**1,605**	**1,476**	**1,330**	**1,364**	**1,343**	**1,219**
Maari & Manaia	480	576	594	427	475	427	385
Beibu	1,170	1,291	833	903	889	916	834
Total Sales ('000 bbls)	**1,650**	**1,867**	**1,428**	**1,330**	**1,364**	**1,343**	**1,219**
US$/bbl (excl. hedging)	64	68	52	46	53	56	57
US$/bbl (incl. hedging)	**61**	**66**	**59**	**46**	**53**	**56**	**57**
US$/bbl Cash op. costs	16	18	15	17	17	17	18
US$/bbl Costs incl. workovers etc	**19**	**18**	**17**	**19**	**18**	**19**	**20**

Source: MST Access, Company

We note that HZN sold its PNG assets for US3.5m (book value US$5.7m) so we have assumed a US$2.2m loss in our reported FY21 forecasts.

Figure 19 – Horizon Oil Forecast Underlying Profit

US$m	FY18	FY19	FY20	FY21	FY22	FY23	FY24
Sales Revenue	**106.2**	**126.7**	**74.9**	**61.1**	**72.0**	**75.1**	**69.9**
Oil hedging gains (losses)	(6.1)	(4.3)	9.1				
Total Sales	**100.0**	**122.4**	**84.0**	**61.1**	**72.0**	**75.1**	**69.9**
Other income	0.8	4.4	0.0	0.0	0.0	0.0	0.0
Total Income	**100.9**	**126.8**	**84.0**	**61.1**	**72.0**	**75.1**	**69.9**
Total operating expenditure	**(32.4)**	**(33.8)**	**(33.5)**	**(28.7)**	**(29.3)**	**(29.7)**	**(29.4)**
EBITDAX	**68.5**	**93.0**	**50.6**	**32.3**	**42.7**	**45.4**	**40.5**
Exploration & Development	(5.8)	(4.6)	(5.0)	(4.0)	(7.1)	(7.1)	(4.1)
EBITDA	**62.7**	**88.4**	**45.5**	**28.3**	**35.6**	**38.3**	**36.3**
Depreciation	(0.3)	(0.1)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)
Amortisation	(29.2)	(39.3)	(26.4)	(23.6)	(24.3)	(23.8)	(21.6)
EBIT	**33.2**	**49.0**	**18.8**	**4.4**	**11.0**	**14.1**	**14.4**
Interest income	0.0	0.0	0.0	0.0	0.0	0.1	0.1
Interest expense	(14.3)	(11.7)	(3.9)	(2.2)	(1.1)	0.0	0.0
Net Interest	(14.3)	(11.7)	(3.8)	(2.1)	(1.0)	0.1	0.1
Underlying PBT	**18.9**	**37.3**	**15.0**	**2.2**	**9.9**	**14.1**	**14.4**
NZ Royalty expense	(0.9)	(1.7)	(2.9)	(0.5)	(1.4)	(1.4)	(1.5)
Taxation	(5.4)	(10.7)	(5.4)	(0.5)	(2.6)	(3.8)	(3.9)
Underlying NPAT	**12.1**	**23.9**	**6.7**	**0.9**	**5.1**	**8.1**	**8.1**
Minority interests	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HZN Security Holders	**12.1**	**23.9**	**6.7**	**0.9**	**5.1**	**8.1**	**8.1**
Underlying PBT	18.9	37.3	15.0	2.2	9.9	14.1	14.4
Impairments	0.0	0.0	(67.3)	(2.2)	0.0	0.0	0.0
Unrealised movement in derivatives	(20.5)	11.2	8.0	0.0	0.0	0.0	0.0
Total non-recurring items	**(20.5)**	**11.2**	**(59.2)**	**(2.2)**	**0.0**	**0.0**	**0.0**
Statutory NPBT	**(1.6)**	**48.4**	**(44.2)**	**0.0**	**9.9**	**14.1**	**14.4**
NZ Royalty expense	(0.9)	(1.7)	(2.9)	(0.5)	(1.4)	(1.4)	(1.5)
Tax	(0.2)	(10.9)	(8.0)	(0.8)	(3.4)	(4.6)	(4.8)
Reported NPAT	**(2.6)**	**35.8**	**(55.1)**	**(1.3)**	**5.1**	**8.1**	**8.1**

Source: MST Access, Company

HZN ended 1Q FY21 with net cash of US$5.1m. HZN noted that US$5.2m of hedge cash receipts were received shortly after quarter end so the balance sheet is in great shape.

Cash operating costs, including workover costs averaged US$16.79/bbl for the year and were sub US$12/bbl for 2H20.

We table below our forecast cash flow statement for HZN.

Figure 20 – Horizon Oil Forecast Cash Flow Statement

US$m	FY18	FY19	FY20	FY21	FY22	FY23	FY24
EBITDAX	**68.5**	**93.0**	**50.6**	**32.3**	**42.7**	**45.4**	**40.5**
Increase in Working Capital	14.5	(15.6)	0.3	2.1	(1.4)	(0.3)	0.6
Other	(14.7)	15.6	0.6	0.6	0.6	0.6	0.6
Cashflow - pre interest & tax	**68.2**	**93.0**	**51.5**	**35.1**	**42.0**	**45.7**	**41.8**
Cash interest earned	0.0	0.0	0.0	0.0	0.0	0.1	0.1
Cash interest paid	(9.4)	(6.5)	(3.5)	(1.9)	(1.0)	0.0	0.0
NZ Royalty expense	(0.9)	(1.7)	(2.9)	(0.5)	(1.4)	(1.4)	(1.5)
Tax Paid	(0.4)	(12.0)	(8.4)	(0.3)	(1.7)	(2.6)	(2.6)
Operating Cashflow	**57.6**	**72.8**	**36.7**	**32.3**	**37.9**	**41.8**	**37.7**
Exploration phase	(7.8)	(2.7)	(2.3)	(2.0)	(3.6)	(3.6)	(2.1)
Oil & Gas assets	(13.3)	(7.5)	(5.8)	(6.0)	(10.6)	(10.6)	(6.1)
Plant & Equipment	(0.0)	(0.1)	(0.0)	(0.1)	(0.1)	(0.1)	(0.1)
Acquisitions/Investments	(16.7)	0.0	0.0	0.0	0.0	0.0	0.0
Divestments	0.0	0.0	0.0	3.5	0.0	0.0	0.0
Other Investing Cash Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net investing	**(37.7)**	**(10.2)**	**(8.1)**	**(4.6)**	**(14.3)**	**(14.3)**	**(8.3)**
Increase in Equity	0.0	0.0	0.0	0.0	0.0	0.0	0.0
(Decrease) in Equity	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr / (Decr) in Equity	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
Cash Dividends Paid	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Debt draw down	0.0	94.6	0.0	0.0	0.0	0.0	0.0
Debt repayments	(16.8)	(161.4)	(24.0)	(12.2)	(12.1)	0.0	0.0
Other Financing Cash Flow	0.0	(1.9)	(0.2)	0.0	0.0	0.0	0.0
Net financing	**(16.8)**	**(68.7)**	**(24.2)**	**(12.2)**	**(12.1)**	**0.0**	**0.0**
Incr / (Decr) in Cash	**3.1**	**(6.2)**	**4.4**	**15.5**	**11.6**	**27.6**	**29.5**
Cash beginning	24.5	27.6	21.5	25.9	41.4	53.0	80.6
FX Impact	(0.0)	(0.0)	0.0	0.0	0.0	0.0	0.0
Cash end	**27.6**	**21.5**	**25.9**	**41.4**	**53.0**	**80.6**	**110.0**
Free cash flow	**19.9**	**62.6**	**28.7**	**27.7**	**23.7**	**27.6**	**29.5**
Net debt / (Cash)	**84.4**	**26.3**	**(1.6)**	**(29.3)**	**(53.0)**	**(80.6)**	**(110.0)**

Source: MST Access, Company

Horizon Oil Valuation

We have derived a valuation for Horizon Oil using a sum of the parts (SOP) valuation: i.e. Net present value of the operating asserts discounted at 10% (NPV_{10}) adjusted for other assets and liabilities.

Capital structure

On top of the 1,302m shares on issue HZN has partly paid shares, options and share appreciation rights (SARS) that can issue over time.

HZN has two tranches of options issued:

- 1m options with an exercise price of $0.20 with an expiry date of 2 November 2020
- 300m options with IMC Group with an exercise price of $0.061 with an expiry date of 15 September 2021

It also has ~106m share appreciation rights (SARS) (management performance incentives) that vest according to the company's total shareholder return (TSR). The TSR is calculated with reference to the volume weighted average share price (VWAP) at the end of the vesting period relative to the performance of the S&P/ASX 200 Energy Index (XEJ).

Before any SARS are issued the company must have achieved a TSR of at least 10% over the relevant period being the period from issue to vesting.

Then:

- if the company TSR is equal to the XEJ performance, 50% of the SARS will vest,
- if the company TSR is >= 14% to the XEJ performance, 100% of the SARS will vest, and

  between equal performance to XEJ and 14% outperformance, the vesting is graduated.

If the TSR hurdle is met, the SARs vest and are in the money at the date they vest. If they are not exercised at the vesting date but at a later date when the 10-day VWAP is less than the exercise price, then the holder will not receive any compensation.

If the holder exercises and the 10 day VWAP on exercise date is greater than the exercise price, the board may elect to compensate the holder in either cash or shares and the value to be settled is the delta between the 10 day VWAP at exercise and the exercise price * number of SARs.

NB: By exercise price, it is referring to the HZN 10-day VWAP on 30 June at the time the relevant tranche of SARs were granted (often referred in disclosure as the 'strike price').

We have assumed for the options and SARS exercise at a share price equal to our valuation: i.e. (A$0.15)

- outstanding options (with an exercise price below our valuation) vest and issue which includes all the IMC Investments Ltd (IMC) options (NB: IMC have Foreign Investment Review Board (FIRB) approval to go to 85% ownership),
- 100% of the Share Appreciation Rights (SARS) that are eligible to vest are issued. We assume this given if the stock reaches our valuation the HZN performance is likely to be greater than the 14% over the S&P/ASX200 Energy Index hurdle rate.
- Additionally, we assume the SARS are issued as stock rather than the company paying out cash (notional $5.0m value in Figure 23 above).

This results in a diluted number of shares on issue of ~1,661m.

Sum of the Parts Valuation

For the two producing assets we have discounted free cash flows at 10.0% as noted above in the asset overviews.

We have assumed book value for the PNG assets.

We have then adjusted for option cash raised (300m IMC options exercisable at $0.061), ongoing corporate liability allocation and then adjusted for forecast FY21 net cash to determine an equity value.

We then convert the US$ valuation at an AUDUSD cross rate of 0.71. (Spot AUDUSD is 0.707)

Figure 21 – Horizon Oil Sum of the Parts Valuation

US$m	Low	Base	High
China (Beibu Gulf) (FY21 NPV @ 12%, 10%, 8%)	137	148	161
New Zealand (Maari) (FY21 NPV @ 12%, 10%, 8%)	28	33	31
Papua New Guinea	0	0	0
Corporate Cost allocation	(44)	(44)	(44)
Option Exercise	13	13	13
Enterprise Value	**134**	**150**	**161**
Net Debt / (Cash) (FY21)	(29)	(29)	(29)
Equity	**163**	**179**	**190**
Diluted Shares on Issue	1,657	1,662	1,664
Per Share US$	**0.10**	**0.11**	**0.11**
AUDUSD	0.710	0.710	0.710
Per Share A$	**0.14**	**0.15**	**0.16**

Source: MST Access, Company

Foreign Exchange risk

HZN earn and report in US$. The only major FX impacts are:

- New Zealand dollar operating costs, and
- the translation from our US$ valuation to an Australian dollar price target.

We note here that the AUDUSD has a ten-year correlation of 0.90 with the US$ Brent oil price. (See our Initiation). Thus, if we assume higher oil prices in our asset valuation forecasts, we need to assume a higher AUDUSD when translating the US$ valuation back to an A$ valuation.

Valuation sensitivities

We have run a number of valuation sensitivities to our base case model (Brent Oil appreciating to US$65/bbl by FY26.

If we assume our Brent Oil price assumption appreciates to US$75/bbl by FY26 ("bull" scenario) versus our base case assumption of US$65/bbl , our FY21 valuation lifts from US$0.11 (A$0.15) to US$0.15 (A$0.20 at AUDUSD of 0.75 or A$0.17 at AUDUSD of 0.85).

If we assume our oil price assumption only appreciates to US$55/bbl by FY26 ("bear" scenario) versus our base case assumption of US$65/bbl , our FY21 valuation drops from US$0.11 (A$0.15) to US$0.07 (A$0.10 at AUDUSD of 0.75).

We table below our base case valuation (Brent Oil appreciates to US$65/bbl by FY26) at different asset discount rates and AUDUSD exchange rates.

Figure 22 – Base Case Valuation A$ sensitivity to asset discount rates and AUDUSD

		Discount rate				
		12.0%	11.0%	10.0%	9.0%	8.0%
AUDUSD	0.600	0.16	0.17	0.18	0.18	0.19
	0.650	0.15	0.16	0.16	0.17	0.18
	0.700	0.14	0.15	**0.15**	0.16	0.17
	0.750	0.13	0.14	0.14	0.15	0.16
	0.800	0.13	0.13	0.14	0.14	0.15
	0.850	0.12	0.12	0.13	0.13	0.14

Source: MST Access

We table below our "bear" case valuation at different asset discount rates and AUDUSD exchange rates with Brent Oil appreciating to US$55/bbl by FY26.

Figure 23 – Bear Case Valuation A$ sensitivity to asset discount rates and AUDUSD

		Discount rate				
		12.0%	11.0%	10.0%	9.0%	8.0%
AUDUSD	0.600	0.10	0.11	0.11	0.12	0.12
	0.650	0.10	0.10	0.11	0.11	0.11
	0.700	0.09	0.09	**0.10**	0.10	0.11
	0.750	0.09	0.09	0.09	0.10	0.10
	0.800	0.08	0.08	0.09	0.09	0.10
	0.850	0.08	0.08	0.08	0.09	0.09

Source: MST Access

We table below our "bull" case valuation at different asset discount rates and AUDUSD exchange rates with Brent Oil appreciating to US$75/bbl by FY26.

Figure 24 – Bull Case Valuation A$ sensitivity to asset discount rates and AUDUSD

		Discount rate				
		12.0%	11.0%	10.0%	9.0%	8.0%
AUDUSD	0.600	0.22	0.23	0.24	0.24	0.25
	0.650	0.20	0.21	0.22	0.23	0.24
	0.700	0.19	0.20	**0.20**	0.21	0.22
	0.750	0.18	0.18	0.19	0.20	0.21
	0.800	0.17	0.17	**0.18**	0.19	0.19
	0.850	0.16	0.16	**0.17**	0.18	0.18

Source: MST Access

Appendix 1 - HZN Quarterly production data

US$m	1Q19	2Q19	3Q19	4Q19	1Q20	2Q20	3Q20	4Q20	1Q21
Block 22/12 (Beibu Gulf) (26.95%) - (55.00% in WZ 12-8)									
Crude Oil Production ('000 bbls) Gross	900.1	1,041.1	859.0	918.5	806.3	843.9	898.1	820.4	795.5
Crude Oil Production (bopd) Gross	*9,783*	*11,316*	*9,544*	*10,094*	*8,764*	*9,173*	*9,869*	*9,016*	*8,646*
HZN Share (26.95%)	*27.0%*	*27.0%*	*27.0%*	*27.0%*	*27.0%*	*27.0%*	*27.0%*	*27.0%*	*27.0%*
Crude Oil Production ('000 bbls) (HZN)	242.6	280.6	231.5	247.5	217.3	227.4	242.0	221.1	214.4
Crude Oil Sales ('000 bbls)	312.3	404.4	301.0	272.9	201.4	209.4	220.2	202.1	196.2
Revenue	**22.6**	**26.5**	**18.3**	**18.2**	**12.1**	**13.0**	**10.7**	**5.5**	**8.4**
Operating expenses	(2.1)	(3.0)	(2.4)	(2.4)	(2.3)	(2.9)	(2.0)	(1.6)	(2.1)
Workover expenditure / Other	(0.6)	(0.5)	(0.0)	(0.0)	0.0	(1.5)	0.0	(0.0)	(0.4)
Net operating cash flow	**19.9**	**23.0**	**15.9**	**15.8**	**9.8**	**8.6**	**8.7**	**3.9**	**5.8**
Exploration & Development	(3.4)	(0.8)	(0.2)	(0.2)	(0.1)	(1.7)	(0.2)	(0.5)	(0.2)
Amortisation	(5.2)	(6.0)	(4.8)	(5.2)	(3.7)	(3.9)	(4.1)	(3.8)	(3.9)
US$/bbl (realised excluding hedging)	72.3	65.5	60.8	66.6	60.2	62.1	48.8	27.3	42.6
Cash operating costs (production)/bbl	8.7	10.8	10.3	9.7	10.5	12.7	8.3	7.4	9.9
PMP 38160 (Maari & Manaia) (10.0% to 26.0% in FY18)									
Crude Oil Production ('000 bbls) Gross	529	543	630	615	629	564	576	414	347
Crude Oil Production (bopd) Gross	*5,752*	*5,902*	*6,997*	*6,759*	*6,838*	*6,127*	*6,334*	*4,552*	*3,770*
HZN Share (26.0%)	26%	26%	26%	26%	26%	26%	26%	26%	26%
Crude Oil Production ('000 bbls)	137.6	141.2	163.7	159.9	163.6	146.6	149.9	107.7	90.2
Inventory on hand ('000 bbls)	44.9	15.4	67.1	67.8	31.7	17.6	82.6	38.8	128.4
Crude Oil Sales ('000 bbls)	134.1	170.6	111.8	159.6	199.3	160.6	85.4	149.1	0.0
Revenue	**10.4**	**10.8**	**7.8**	**12.1**	**13.4**	**11.3**	**5.1**	**3.7**	**0.0**
Operating expenses	(5.5)	(4.7)	(4.3)	(4.1)	(4.1)	(4.3)	(3.3)	(1.7)	(2.3)
Workover expenditure / Other	0.0	0.0	0.0	0.0	0.0	(1.0)	0.0	0.0	(1.1)
Net operating cash flow	**4.9**	**6.1**	**3.6**	**8.0**	**9.3**	**6.0**	**1.8**	**2.0**	**(3.4)**
Inventory adjustment	0.4	(1.5)	2.9	0.0	(2.4)	(0.5)	1.3	0.6	(3.8)
Exploration & Development	(0.7)	(0.6)	(0.1)	(0.3)	(0.9)	(0.5)	(0.2)	0.3	(0.3)
Amortisation	(3.7)	(4.6)	(4.9)	(4.8)	(3.1)	(2.8)	(2.9)	(2.0)	(1.6)
US$/bbl (realised excl. hedging)	77.6	63.5	70.1	75.7	67.3	70.3	59.8	25.1	
Cash operating costs (production)/bbl	39.9	33.4	26.1	25.8	25.0	29.0	22.2	16.1	25.2
Total Horizon Oil									
US$m	1Q19	2Q19	3Q19	4Q19	1Q20	2Q20	3Q20	4Q20	1Q21
Total Production ('000 bbls)	**380.2**	**421.7**	**395.2**	**407.5**	**380.9**	**374.0**	**391.9**	**328.8**	**304.6**
Total Sales ('000 bbls)	**446.4**	**575.1**	**412.9**	**432.5**	**400.8**	**370.0**	**305.6**	**351.2**	**196.2**
Sales Revenue	33.0	37.3	26.2	30.3	25.5	24.3	15.9	9.3	8.4
Oil hedging gains (losses)	(4.2)	(2.6)	0.9	1.5	1.6	1.2	3.3	2.9	(1.0)
Total Revenue	**28.8**	**34.8**	**27.0**	**31.8**	**27.1**	**25.5**	**19.2**	**12.2**	**7.4**
Operating expenditure	(7.6)	(7.7)	(6.7)	(6.5)	(6.4)	(7.1)	(5.3)	(3.4)	(4.4)
Workovers, Repairs & Refurbishments / Other	(0.6)	(0.5)	(0.0)	(0.0)	0.0	(2.6)	0.0	(0.0)	(1.6)
Net operating cash flow	**20.7**	**26.5**	**20.4**	**25.2**	**20.8**	**15.8**	**13.9**	**8.8**	**1.4**
Inventory adjustment	0.4	(1.5)	2.9	0.0	(2.4)	(0.5)	1.3	0.6	(3.8)
Exploration & Development	(5.0)	(2.1)	(0.7)	(1.0)	(1.5)	(2.6)	(0.7)	(0.5)	(0.8)
Amortisation	(8.9)	(10.6)	(9.7)	(10.0)	(6.8)	(6.7)	(7.0)	(5.8)	(5.5)
US$/bbl (realised excluding hedging)	**73.9**	**64.9**	**63.3**	**70.0**	**63.7**	**65.7**	**51.9**	**26.4**	**42.6**
US$/bbl (realised including hedging)	64.6	60.5	65.5	73.4	67.7	69.0	62.8	34.6	37.5
US$/bbl Cash operating costs (production bbls)	**20.0**	**18.4**	**16.9**	**16.0**	**16.7**	**19.1**	**13.6**	**10.2**	**14.4**
US$/bbl Operating Costs including workovers etc	21.5	19.6	16.9	16.0	16.7	26.0	13.6	10.3	19.6
Exploration & Development Capex (US$m)									
Papua New Guinea Exploration & Development	(0.8)	(0.7)	(0.5)	(0.6)	(0.6)	(0.4)	(0.4)	(0.2)	(0.3)
PMP 38160 (Maari & Manaia) & Other NZ	(0.7)	(0.6)	(0.1)	(0.3)	(0.9)	(0.5)	(0.2)	0.3	(0.3)
Block 22/12 (Beibu Gulf)	(3.4)	(0.8)	(0.2)	(0.2)	(0.1)	(1.7)	(0.2)	(0.5)	(0.2)
Total Exploration & Development	**(5.0)**	**(2.1)**	**(0.7)**	**(1.0)**	**(1.5)**	**(2.6)**	**(0.7)**	**(0.5)**	**(0.8)**

Source: Company data

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