

ASX:EEG

 **EMPIRE**
Energy

Quarterly Report

For the period ending 31st December 2021

Level 19, 20 Bond Street
Sydney NSW 2000

Q4 2021 Highlights

- Carpentaria-2H successfully drilled, cased, and suspended on time and on budget
- 192 metres of net pay intersected through the Velkerri A, B, Intra A/B and C shales
- Carpentaria-2H has been suspended awaiting fracture stimulation and flow testing to start in Q2 2022 after the wet season
- Final cost for delivering Carpentaria-2H approximately \$11.1 million
- Empire and the Commonwealth have commenced discussions to enter into new Beetaloo Cooperative Drilling Program agreements to support work programs in accordance with the Federal Court decision on 23 December 2021
- The Charlotte 2D seismic survey was acquired during the Quarter in EP187, demonstrating that the Velkerri shales in the Eastern prospective area are at equivalent depths to Carpentaria-2H over a greater area than previously mapped
- NSAI update to Empire's Contingent and Prospective Resources Report in EP187 expected during February 2022
- Gas sales and transportation MOU executed with Northern Territory Government-owned Power and Water Corporation
- 12m Unlisted Options exercised which raised \$3.84 million cash (gross)
- **Cash at the end of the quarter was \$25.8 million**

Comments from Managing Director Alex Underwood:

"I am pleased to share the results of another successful quarter with our shareholders. We drilled our first ever horizontal appraisal well in the Beetaloo Sub-basin, Carpentaria-2H, on time and on budget. This is a significant milestone, given the operational and geological complexities of doing so in a remote location in an emerging basin. We look forward to sharing the results of an updated independent resource report reflecting these results in the coming weeks, and fracture stimulating the well in Q2.

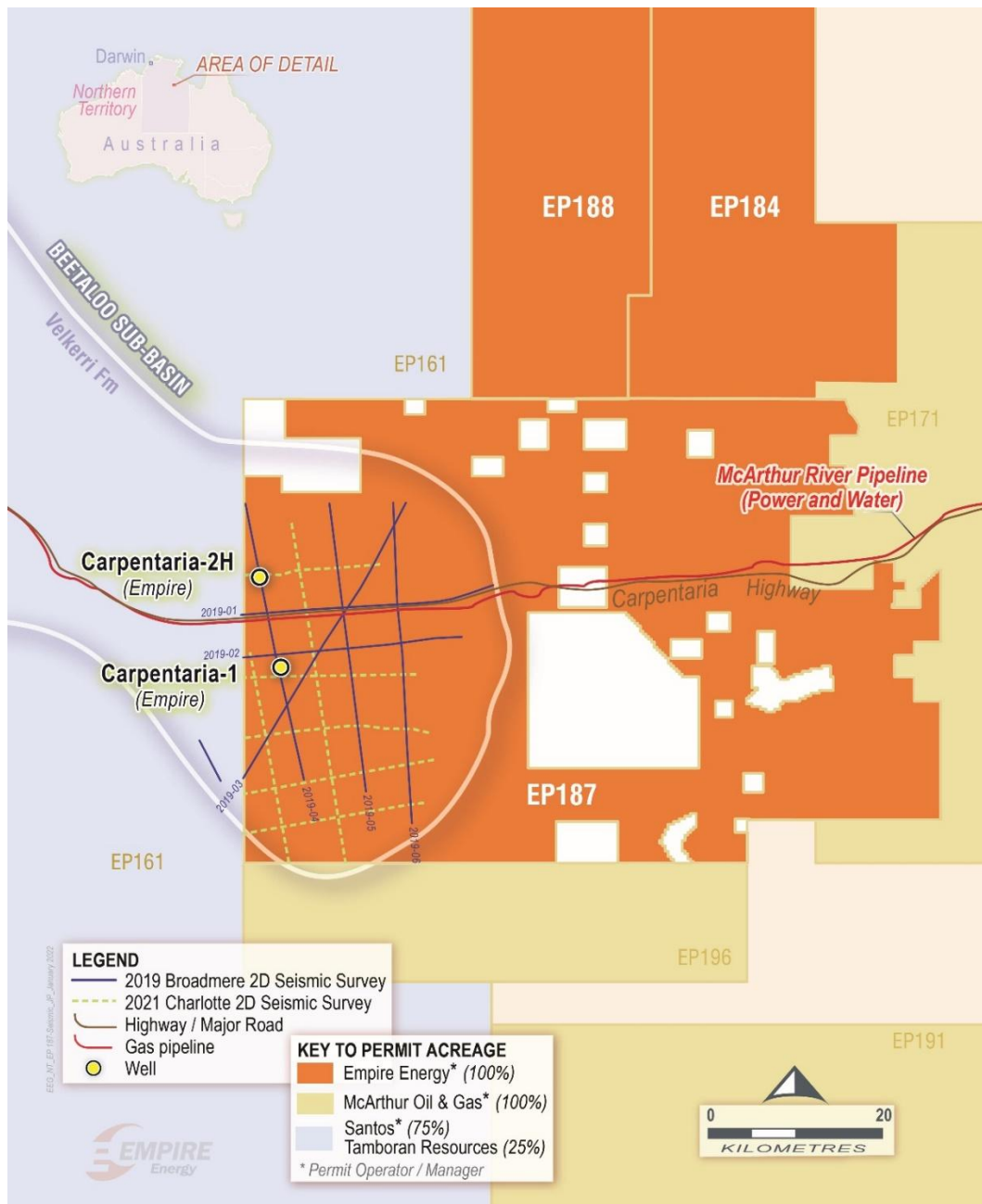
We are in a pivotal period for the Beetaloo Sub-basin, with at least five horizontal appraisal wells targeting the Middle Velkerri B shale either underway or planned (Empire's Carpentaria-2H, two wells recently drilled and stimulated by the Santos / Tamboran JV, and two wells planned by the Origin / Falcon JV). We continued to progress our early commercialisation strategy following the execution of an MOU with NT's Power Water Corporation, which provides for the transportation and sale of gas into the existing McArthur River Pipeline. This complements our longer term plans in partnership with APA Group to send large volumes of low CO2 gas to Australia's East Coast and to LNG export markets via Darwin.

The positive progress being made across the Beetaloo comes at a critical time for global energy security. Severe energy market dislocation, characterized by energy shortages in Europe, record high gas prices and geopolitical tensions, demonstrates the critical role of gas in the energy transition and the urgent need for new sources of low CO2 supply.

I am proud of the central role that the Empire team, including our employees, contractors, Board, shareholders and local stakeholders are playing in realizing the potential of the Beetaloo and the energy security it may bring to hundreds of millions of people across our region and express my gratitude to each of you for your support."

Northern Territory Operations Update

During the quarter, Empire successfully drilled, cased, and suspended the horizontal Carpentaria-2H (“C-2H”) well in EP187, located within the Beetaloo Sub-basin, Northern Territory. C-2H is now awaiting fracture stimulation and production testing is expected to commence in Q2 2022 after the wet season.

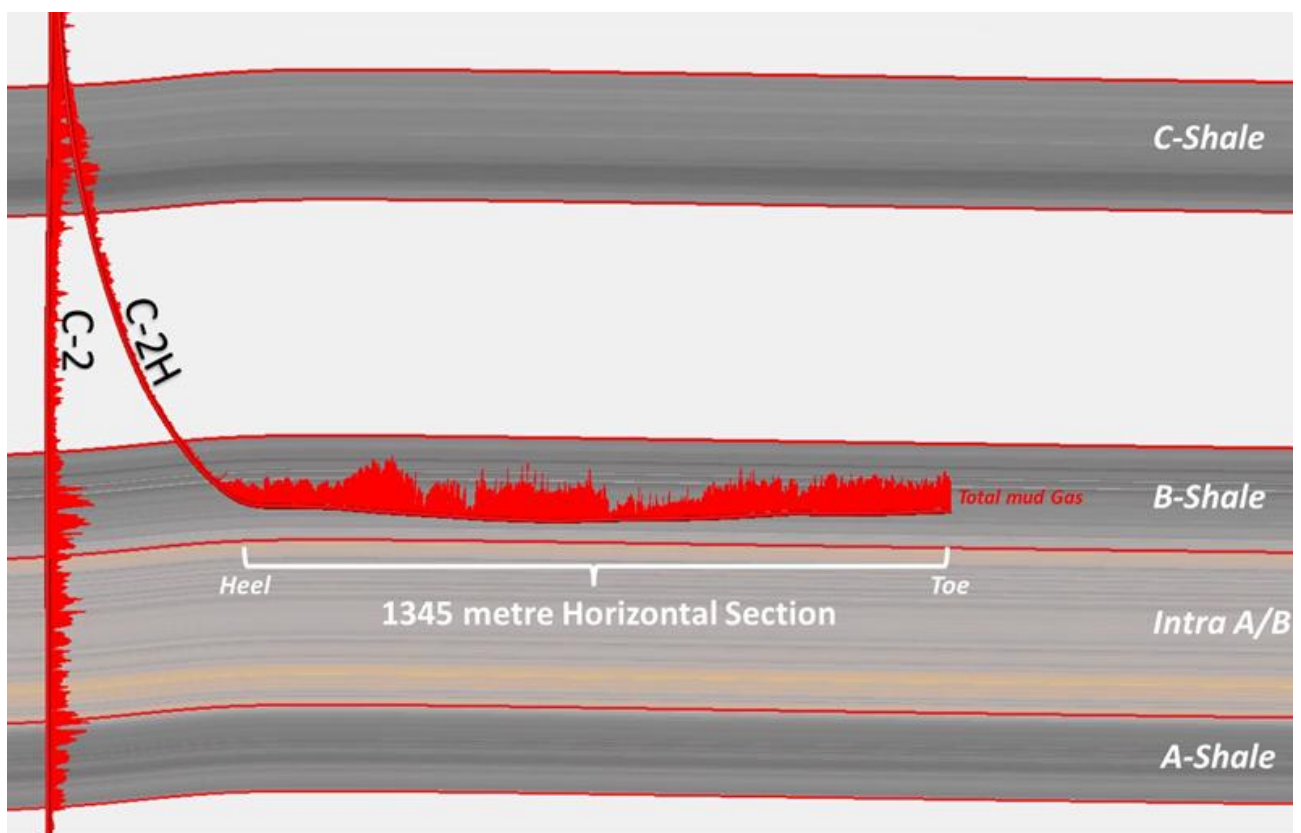


Prior to drilling the horizontal section of C-2H, a vertical well section was drilled to 1,835 metres and intersected 192 metres of net pay through the same shales as the Carpentaria-1 (“C-1”) vertical well drilled 12 months prior, ~11 kilometres to the south of C-2H. Both the C-1 and C-2H vertical hole sections intersected the Velkerri A, B, Intra A/B and C shales with

highly consistent logs and thickness, confirming the lateral continuity of the Velkerri shales throughout EP187. The shales were ~240 metres deeper at the C-2H location, which is likely to aid formation productivity because of increased formation pressure without negatively impacting other reservoir parameters nor development costs.

The target unit for the C-2H horizontal well was selected using information from C-1 and C-2H vertical results and the target 'lateral' section was constrained by Empire's good quality 2019 seismic data and C-1 flow testing. This lateral section was drilled according to plan within the Velkerri B selected as the shale target. After kicking off from the vertical hole section and building angle to horizontal the C-2H well was drilled to a total measured depth of 3,150 metres. The total length of the heel to toe horizontal section of the wellbore of 1,345 metres was wholly placed within the Velkerri B Shale target window.

C 2-H is the longest lateral drilled in the Beetaloo to date.



Legend

1. Not to scale
2. Mud log simplified, histogram above shows total mud gas

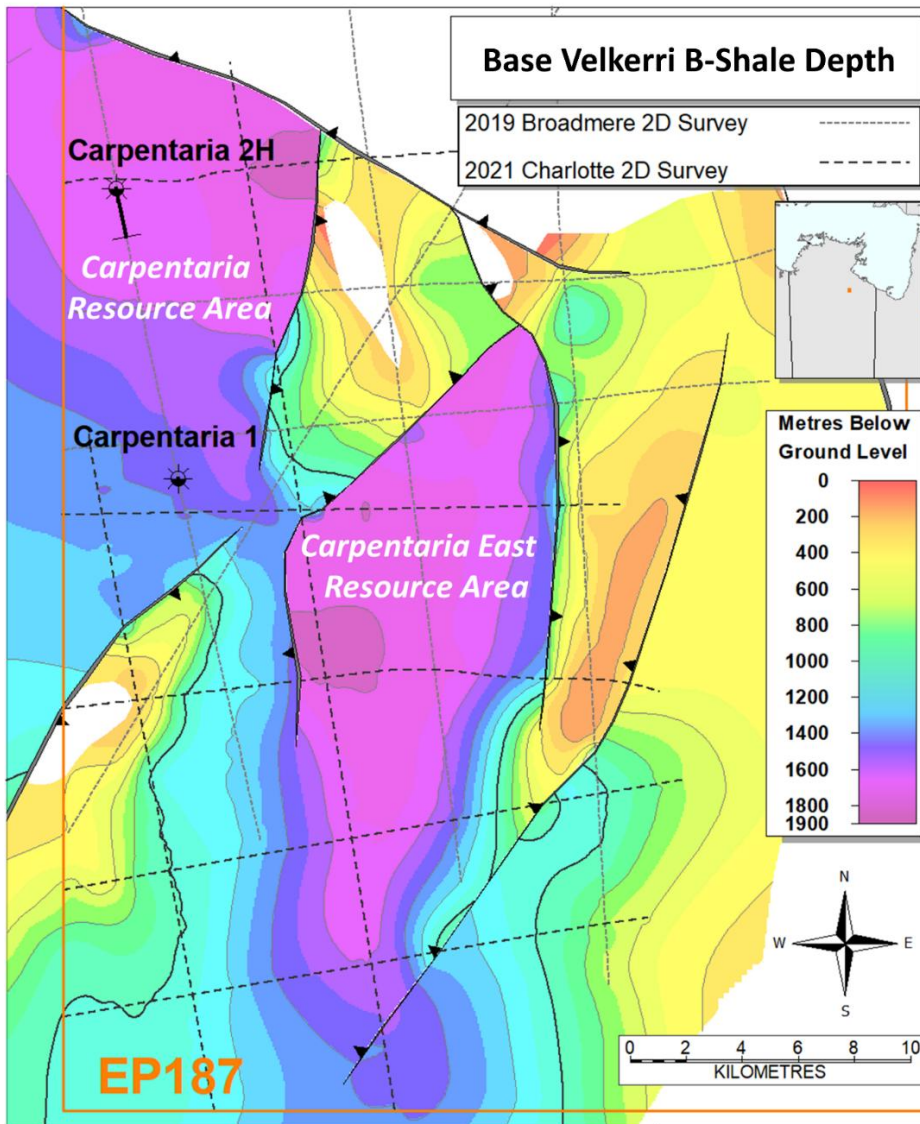
C-2H was drilled on time and on budget using Silver City Rig 40. Spud to rig release was 39 days, of which the horizontal section only took 5 days. Empire demonstrated improving operating efficiency in the Beetaloo Sub-basin drilling environment and continues to be the basin's cost leader. Further efficiencies and cost reductions are expected in future wells as drilling and completion techniques are further refined.

The final cost for the C-2H drilling campaign including well pad construction, water monitoring bores, formation evaluation, drilling, casing, cementing, and suspending the well in preparation for fracture stimulation was approximately \$11.1 million. Of the \$11.1 million, outstanding

accounts payable as of 31 December 2021 and invoices received during January 2022 totalled approximately \$4.4 million.

The planning phase for fracture stimulation and flow testing is well underway. Petrophysics of the C-2H vertical hole section, sidewall coring and wireline logging will be incorporated into fracture stimulation planning. Empire has all approvals in place to execute the fracture stimulation and production test.

During the quarter, Empire also acquired the Charlotte 2D Seismic Survey to infill and extend the coverage of the 2019 seismic survey acquired in EP187. The survey was acquired during the same period as the C-2H drilling, with the processed product provided to Empire early Q1 2022. The seismic data and drilling results of C-1 and C-2H have enhanced Empire's understanding of the EP187 Carpentaria resource area. The undrilled but highly prospective area immediately to the east of the Carpentaria resource area, where seismic coverage was both infilled and extended, was demonstrated to be deeper over a more extensive area than previously mapped, thereby enhancing its prospectivity and potential future productivity.



Map showing depth to base of the B-Shale, 2019 and 2021 seismic lines, Carpentaria Resource Area and Eastern Resource Area

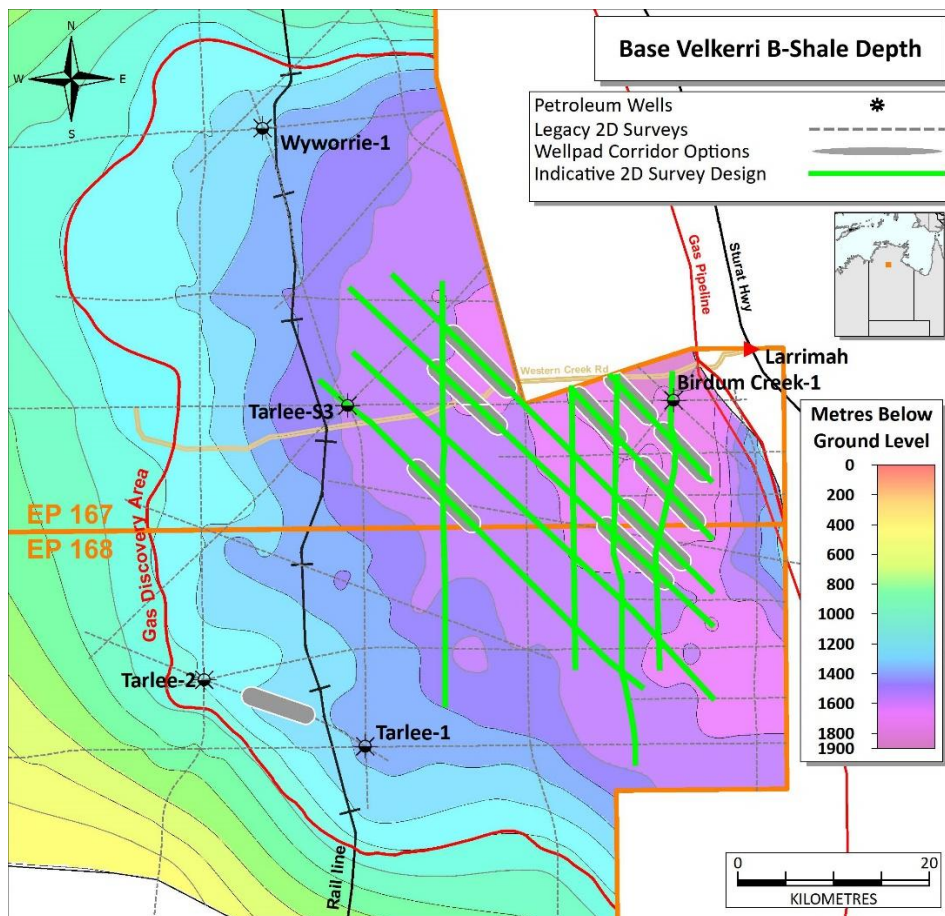
The data acquired in both the vertical and horizontal hole sections of C-2H well and the mapping of the recently acquired Charlotte 2D Seismic Survey have been supplied to Netherland, Sewell and Associates (“NSAI”) for preparation of an update to Empire’s Contingent and Prospective Resources report for EP187. The report is expected to be completed in February 2022.

Western Beetaloo Exploration Permits Update

On 22 December 2021, Empire submitted an Environment Management Plan (“EMP”) to the Northern Territory environmental regulator for:

- The acquisition of up to ~380 km in-fill 2D seismic survey over EP167 and EP168 to refine the understanding of the Velkerri Shale and optimize seismic line orientations for future horizontal wells; and
- The drilling, hydraulic stimulation, and flow testing of up to six horizontal wells on six well pad locations within the Gas Discovery Area in EP167 and EP168. The approvals will give Empire significant flexibility for future appraisal, noting that each well pad will have the potential to accommodate numerous production wells in a future commercial development scenario.

Once approved, the EMP will remain valid for five years.



Map showing depth (in meters below ground) to base of the B-Shale, existing and proposed seismic lines, well pad corridor options and EP167/168 Gas Discovery Area

During the quarter, Empire continued stakeholder engagement activities with Pastoral Leaseholders and Traditional Owners in EP167 and EP168.

In addition, an archaeological survey was completed in October across the proposed work programme activity areas of EP167 and EP168 in preparation for environmental approvals.

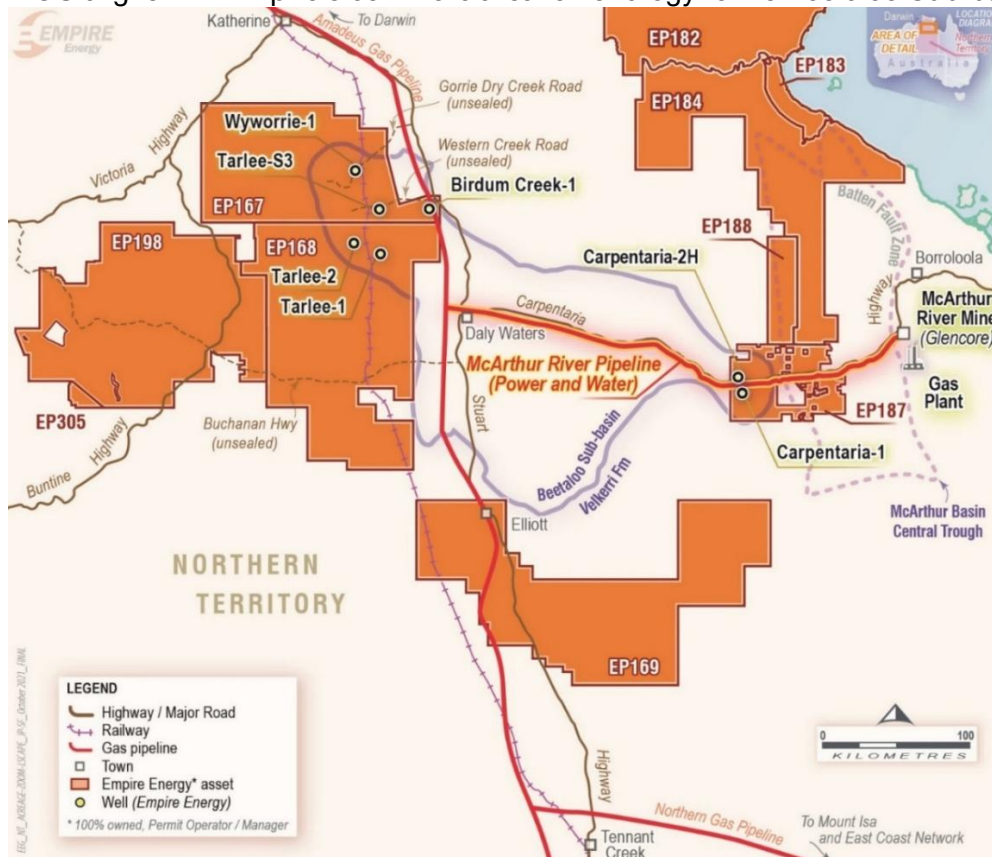
During the quarter Empire was granted variations, suspensions, and extensions for EP167, EP168, EP169 and EP198 by the Northern Territory Government (“NTG”). The variation of work commitments has maintained a similar level of activity, with a 2D seismic survey work requirement shifting from EP169 to EP167 and EP168 to meet Empire’s exploration and appraisal objectives. Following completion of the Pangaea / EMG acquisition, the Empire technical team conducted a review of the prospectivity of EP305 in the Birrindudu Basin and deemed it to have limited potential for unconventional or conventional oil or gas. Empire’s request to surrender EP305 was accepted by NTG.

Gas Sales and Transportation MOU Executed with Power and Water Corporation

On 1 November 2021, Empire announced it had executed a gas sales and transportation memorandum of understanding (“MOU”) with Power and Water Corporation (“Power and Water”).

Power and Water is a NTG owned corporation and the Northern Territory's largest provider of gas, electricity, water and sewerage services. Its gas unit buys gas from producers for onwards supply to electricity generators and major gas users across Northern Australia.

The MOU is in relation to gas to be produced from Empire’s Northern Territory assets following award of production licences, including EP187 and Empire’s Western Beetaloo tenements, and transportation services for gas delivered from EP187. The execution of the MOU aligns with Empire’s commercialisation strategy for its Beetaloo Sub-basin assets.



Australian Government's *Beetaloo Cooperative Drilling Program*

On 23 December 2021, the Federal Court rejected an activist organisation's legal challenge to the Australian Government's *Beetaloo Cooperative Drilling Program* but ruled initial contracts executed between the Commonwealth and Empire's subsidiary Imperial Oil & Gas Pty Limited ("Imperial") were invalid for procedural reasons.

Federal Minister for Resources and Water, Hon Keith Pitt MP, welcomed the Court's judgement, commenting:

- *"This is a commonsense decision that will allow grants for the development of the Beetaloo Basin to proceed, which has the potential to deliver thousands of jobs and billions of dollars in economic activity to the Northern Territory";*
- *"The Instrument under which the grant program was written and the Approval Decision to award grants to Imperial Oil and Gas were both valid and we welcome that decision so that we can move forward with the program";* and
- *"The Beetaloo Basin has enormous potential to deliver the gas Australia needs for the future."*¹

Empire, through Imperial, and the Commonwealth have commenced discussions to enter into new agreements in accordance with the Federal Court decision.

Separately, on 29 November 2021 a second disallowance motion brought by the Australian Greens in the Senate seeking to void the *Beetaloo Cooperative Drilling Program* was defeated. Under Australian Senate rules a disallowance motion can only be brought forward twice for consideration.

The Senate Inquiry into the *Beetaloo Cooperative Drilling Program* is expected to deliver its final report in March 2022.

¹ <https://www.minister.industry.gov.au/ministers/pitt/media-releases/court-gives-green-light-beetaloo-basin-gas-development>

Other Corporate News

Exercise of Options

In December 2021, 12,000,000 unlisted options in Empire which were due to expire on 31 December 2021 were exercised at \$0.32 per share which raised \$3.84 million in cash. 650,000 employee options were also exercised at \$0.30 per share which raised an additional \$195,000 in cash. Proceeds from the options exercise will be applied to Empire's 2022 work program activities and working capital.

Empire Tenements

There have been no changes to the petroleum tenements held by Empire and its subsidiaries since last quarter, other than the relinquishment of EP305 as described above.

A full list of tenements as at 30 September 2021 can be found on the Empire website:

<https://app.sharelinktechnologies.com/announcement/asx/1f659ff26feab7a50e3c7fb87f861067>



Silver City Drilling crew at Carpentaria-2H site



Empire's VP Community & Government Relations, Sonia Harvey, with Silver City Drilling engineer analysing data



InGauge geologist analysing clippings from Carpentaria-2H site

NT Petroleum Sector Update

- **On 6 October 2021, Tamboran Resources (ASX: TBN) announced that the Tanumbirini-3H vertical well (operated by Santos) and build section had been completed at approximately 3,760 metres after encountering the target Mid-Velkerri B shale.**²
- **On 7 October 2021, Falcon Oil & Gas Ltd (TSXV: FO, AIM: FOG) provided initial analysis of natural gas composition by gas chromatography from the Kyalla 117 well (operated by Origin Energy) which confirmed a liquids rich gas stream low in CO₂. The elevated C₃₊ gas component of 14.42 mol%, confirmed the Lower Kyalla Shale as a liquids rich play.**³
- **On 15 October 2021, Falcon announced that drilling of the Velkerri 76 vertical appraisal well (operated by Origin Energy) had been completed.** Preliminary evaluation of the Velkerri 76 well confirmed the presence of the Middle Velkerri Shales (A, Intra A/B, C and C), continuation of the regionally pervasive Amungee Member within the Velkerri Formation and that the Amungee Member at Velkerri 76 is likely within the wet gas maturity window as evidenced by mud gas data during drilling.⁴
- **On 12 November 2021, Falcon provided preliminary petrophysical interpretation and mud gas composition data from the Velkerri 76 appraisal well.** The results of preliminary petrophysical interpretation confirm the prospectivity of the Amungee Member B Shale (Middle Velkerri B), reservoir quality of the B Shale (TOC, porosity and gross thickness) compares strongly with commercial shale plays in the United States and Velkerri 76 provides yet another robust data point for the joint venture to consider various commercialisation options across its permits.⁵
- **On 9 November 2021, Tamboran Resources announced that Tanumbirini-3H had been successfully drilled to a total measured depth of 4,857 metres, with the horizontal section intersecting over 1,000 metres of the Mid-Velkerri B shale.** Tamboran reported that, consistent with Tanumbirini-2H, the Tanumbirini-3H well encountered significant gas shows that are often strong indicators of commercial flow rates.⁶

² Tamboran Resources ASX release “Operational Update – EP 161 Tanumbirini 3H vertical section completed and drilling of the horizontal section to commence shortly” dated 6th October 2021

³ <https://falconoilandgas.com/2021/10/07/kyalla-117-n2-1h-st2-update/>

⁴ <https://falconoilandgas.com/2021/10/15/2783/>

⁵ <https://falconoilandgas.com/2021/11/12/preliminary-petrophysics-and-mud-gas-composition-from-velkerri-76-s2-1-well/>

⁶ Tamboran Resources ASX release “Operational Update – EP 161 Tanumbirini 3H Well Successfully Drilled” dated 8th November 2021

- **On 29 November 2021, Tamboran Resources announced that fracture stimulation of the Tanumbirini-2H and 3H wells (operated by Santos) had commenced.**⁷
- **On 30 December 2021, Tamboran Resources announced that the Tanumbirini-2H and 3H wells were flowing gas to surface.** Gas flow followed fracture stimulation across 11 and 10 stages in the Tanumbirini-2H and 3H wells, respectively.⁸
- **On 25 January 2022, Tamboran Resources announced that fracture stimulation of Tanumbirini-2H and 3H within the Mid-Velkerri B shale was conducted over a 660 meter lateral interval and 600 meter lateral interval, respectively during December 2021.** Both wells were undergoing clean-up activities and flowing gas to surface at the end of the December. L Tamboran's 100 per cent owned and operated EP136 Beetaloo drilling program Maverick-1H well is expected to spud in mid-calendar year 2022.⁹
- **On 25 January 2022, Falcon Oil & Gas announced details of its Stage 3 work program in the Beetaloo Sub-basin, with its joint venture partner, Origin Energy.** Positive results here will provide a further line of sight to the commercialisation of the Beetaloo and could lead to a pilot development program in 2023. The Stage 3 planned work program includes:
 - Acquisition of 40km² of 3D seismic survey on the Amungee NW-1H well lease area;
 - Drilling two 2,000+ meter horizontal wells on the Amungee NW-1H pad, targeting the Amungee Member (formerly known as the Middle Velkerri) B shale;
 - Fracture stimulation of both horizontal wells; and
 - Extended production testing of between 90 and 180 days on each well.¹⁰

⁷ Tamboran Resources ASX release "Operational Update – EP 161 Tanumbirini #2H/3H Fracture Stimulation Program initiated" dated 29th November 2021

⁸ Tamboran Resources ASX release "Tanumbirini 2H and 3H in EP 161 flow gas to surface following successful fracture stimulation program" dated 30th December 2021

⁹ Tamboran Resources ASX release "Second quarter activities report for the period ended 31 December 2021" dated 25th January 2022

¹⁰ <https://falconoilandgas.com/2022/01/25/planned-stage-3-work-programme-beetaloo-sub-basin/>

US Operations Update

Empire's US operations reported a positive EBITDA for Q4 2021 of US\$932k (Q3 2021: US\$217k), reflecting improved gas prices and increased gas production.

The average daily production for Q4 2021 was 4,793 Mcfe / day vs. Q3 2021 4,585 Mcfe / day, representing an increase 4.5% year-on-year. The weighted average sales price for gas after hedging was US\$5.25 / Mcf (Q3 2021: US\$3.51 / Mcf).

Increased gas prices allowed Empire to return approximately 180 wells to production over FY2021 which were previously shut-in. Although the COVID-19 omicron outbreak has had an impact on the community in New York State, Empire's operations have continued unabated. The virus has however led to reassignment of some responsibilities as team members isolate for periods.

The renewable energy project leasing initiative progressed in Q4 2021 with US\$20,000 in cash received. Empire is working on a further five transactions with solar companies.

The NYMEX Henry Hub contract for February 2022 settled at US\$6.265 / mmbtu. The high February contract price will enhance Empire's cash flows for the month of February 2022.

Description	3 months to 31 Dec 2021	3 months to 31 Dec 2020	FY 2021	FY 2020
Net Oil Production (Bbls)				
Appalachia	456	689	2,456	1,995
Net Natural Gas Production (Mcf)				
Appalachia	438,215	433,976	1,676,416	1,723,181
Net Gas Equivalent (Mcf):				
Appalachia	440,951	438,110	1,691,152	1,735,151
Mcf/d	4,793	4,762	4,633	4,754
Weighted Avg Sales Price (US\$/Mcf)				
Before Hedge	5.25	2.30	3.52	1.93
After Hedge	5.25	2.41	3.52	2.34
Lifting Costs (incl. taxes):				
Total Natural Gas Equivalent (US\$/Mcf)	1.36	1.23	1.24	1.21

Revenue estimates have been made for the last 2 production months of the quarter under review due to customer payment/invoice cycles. As such, there may be changes to production, revenues and operating ratios for the previous quarter as final production statements are received.

Balance Sheet & Liquidity

Empire's cash balance as at 31 December 2021, was \$25.8 million, of which \$24.7 million was held in Australian dollars, and US\$0.78 million was held in United States dollars.

During the Quarter, Empire made a debt repayment of US\$137,500 to the Macquarie Bank Credit Facility. The total outstanding balance at Quarter-end was US\$5,850,020. Empire also received confirmation on 24 November 2021 from PNC Bank that its second tranche PPP loan of US\$343,602 had been forgiven in full including outstanding interest. The PPP loan has been cancelled.

Empire's prudent gas hedging policy as set out in the table below is weighted towards put options to provide for upside gas price exposure while ensuring downside price protection and a level of cash flow stability:

Period	Volume mmbtu/month	Hedge Type	Strike Price US\$/mmbtu	Premium US\$/mmbtu
Jan 22 to Dec 22	70,000	Put Options	\$3.25	\$0.29
Jan 22 to Dec 22	25,000	Put Options	\$2.50	\$0.35
Jan 22 to Dec 22	50,000	Put Options	\$2.50	\$0.41
Jan 23 to Dec 23	25,000	Put Options	\$2.50	\$0.27
Jan 23 to Dec 23	25,000	Put Options	\$2.50	\$0.41

During the Quarter, the Company made payments to related parties of \$105,578. These payments comprised the Managing Director's salary and Non-Executive Directors' fees paid in cash.

Liquidity

Quarter Ended	31/12/2021	30/09/2021	30/06/2021	31/03/2020
Cash (A\$)	\$25,757,201	\$31,752,274	\$41,899,250	\$11,353,728
Debt (A\$) ¹¹	\$(8,062,321)	\$(8,785,959)	\$(8,604,233)	\$(9,051,670)
Net Cash / (Debt)¹²	\$17,694,880	\$22,966,315	\$33,295,017	\$2,302,058

Production and Development Expenditure (ASX Listing Rule 5.2.1)

Asset	Nature of Expenditure	Amount
New York and Pennsylvania		
	Production costs (infield operations, gas processing, and transportation)	\$475,705
	Production costs (wages, consultants, and other overheads)	\$245,863
	Other production costs	\$15,513
Total		\$737,081

¹¹ Note: Debt is comprised of US\$5,850,020 owing under the Senior Secured Facility with Macquarie Bank Limited

¹² Note: Net Cash / (Debt) is defined as AUD equivalent cash minus AUD debt for the purposes of this calculation

Empire did not incur production and development expenditure on its other assets during the Quarter.

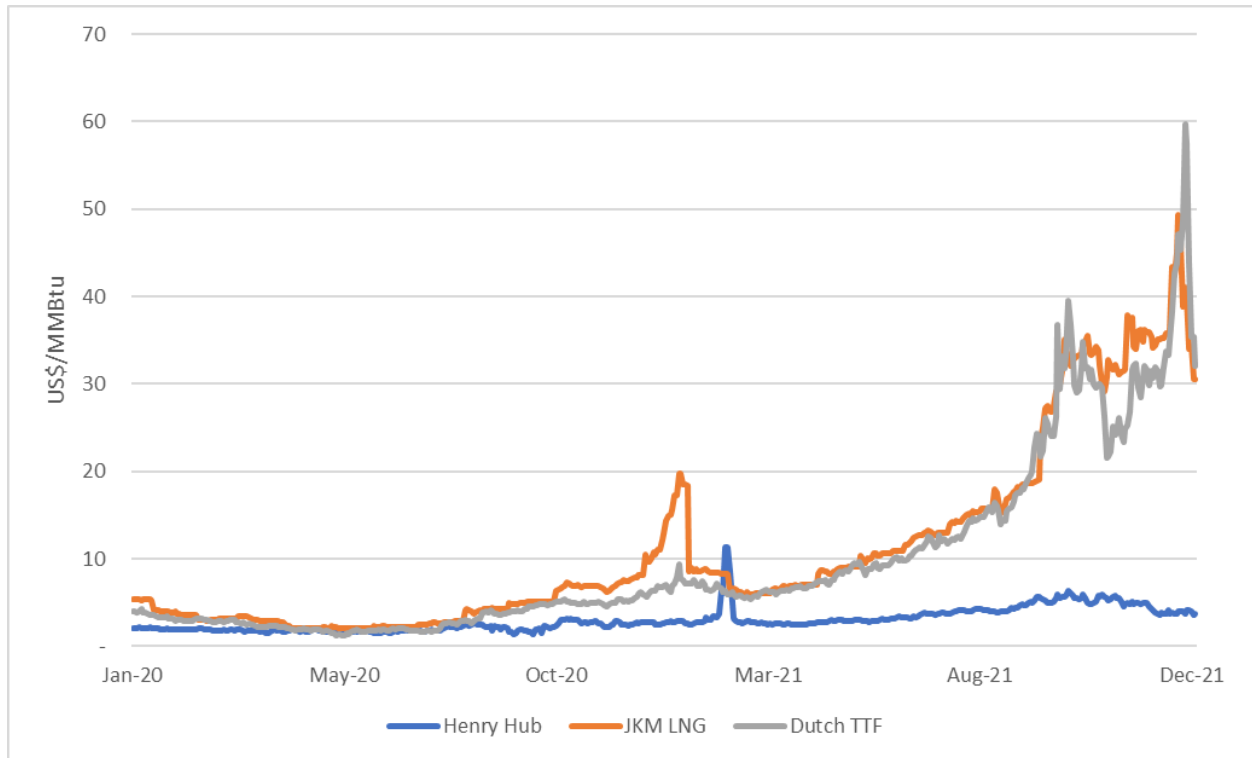
Exploration Expenditure (ASX Listing Rule 5.2.2)

Asset	Nature of Expenditure	Amount
EP187 – Capitalised		
	Consulting fees (Operations and Technical)	\$862,906
	Carpentaria-2H drilling	\$6,356,912
	Charlotte 2D seismic	\$1,280,875
	Carpentaria-1 hydraulic fracture stimulation	\$196,822
Total		\$8,697,515
EP187 - Expensed		
	Northern Territory Government (NTG) annual and licensing fees	\$943
	Carpentaria 2-H insurance	\$259,768
	Consulting fees	\$30,525
	Other overheads (title fees, mapping, etc)	\$14,186
EP184 - Expensed		
	NLC administration and exploration fees	\$4,897
EP167 and EP168 (Western Beetaloo) - Expensed		
	NTG licensing fees	\$15,920
	Consulting fees	\$67,309
	Other overheads (accommodation, meals, fuel and helicopter hire)	\$54,522
Total		\$448,070

Empire did not incur exploration expenditure on its other assets during the Quarter.

Energy Markets Update

Global gas prices remained at historical highs over the Quarter. However, large price differences between the Henry Hub price in the United States and spot prices in Europe and Asia are evident.



The Henry Hub spot price softened during the Quarter, amid mild weather across much of the United States reducing gas demand for heating. S&P Global Platts Analytics data showed that US LNG feedgas demand was around 13 Bcf / day in late December, a new record as US liquefaction facilities ran at full capacity to take advantage of the US / European gas price arbitrage.¹³ The additional LNG volumes into Europe provided some price relief for European consumers however ongoing Russian gas supply issues and limited European gas in storage is expected to remain. Asian LNG demand continues to grow, competing with Europe for available spot cargos in a tightening market for LNG.

During the Quarter, construction of the world's largest LNG import terminal was completed.¹⁴ The Kuwait Petroleum Corporation owned Al-Zour LNG Import Terminal located in Kuwait has regasification capacity of approximately 22mtpa of LNG. BloombergNEF expects LNG use in the Middle East to increase almost 50% by 2025, as the region seeks to replace oil powered electricity generation with gas for emissions reduction and other environmental reasons.¹⁵ PetroChina also provided a buoyant outlook for LNG into China with Chinese natural gas demand expected to peak in 2040. Luo Yizhou, vice president of PetroChina International said

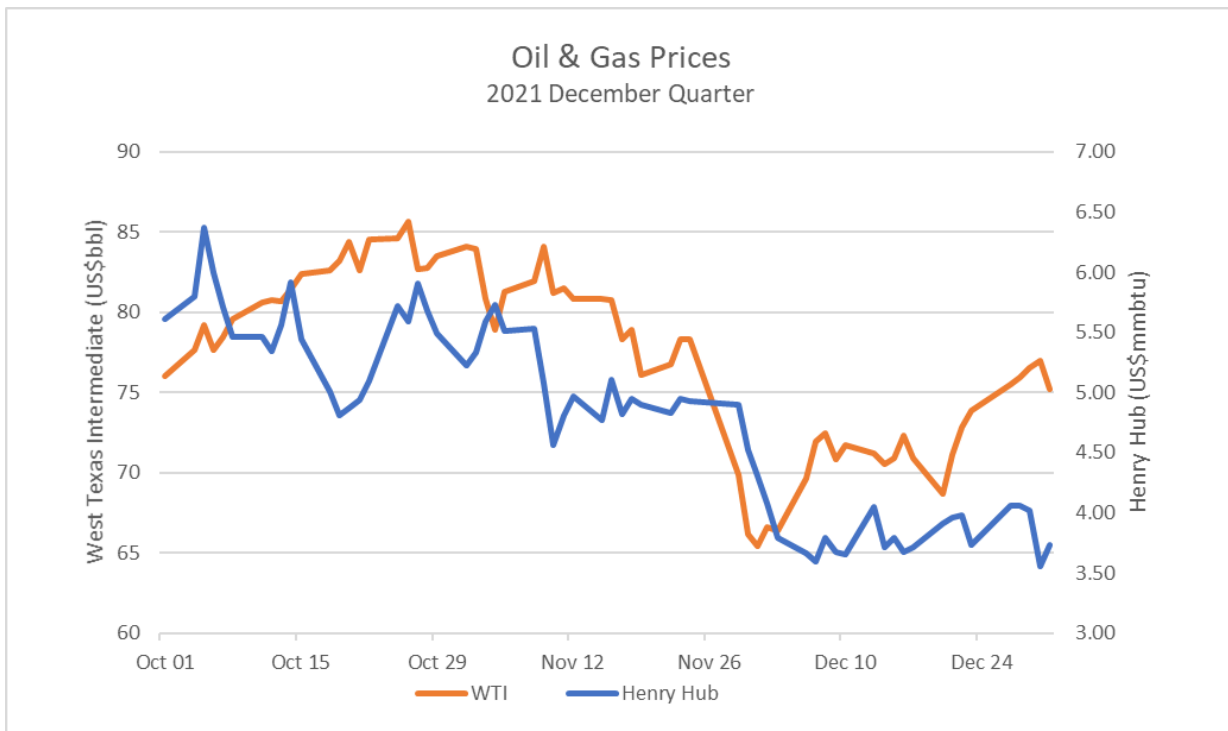
¹³ <https://www.spglobal.com/platts/en/market-insights/latest-news/lng/122121-us-lng-output-appears-to-be-at-full-capacity-as-european-prices-keep-surging>

¹⁴ <https://pulsenews.co.kr/view.php?year=2021&no=1079185>

¹⁵ <https://www.worldoil.com/news/2021/7/13/kuwait-opens-first-lng-import-facility-in-push-for-greener-electricity>

“About 50% of the incremental global natural gas demand will come from Asia by 2035, with China and India as the main engines to boost the development of the LNG market”.¹⁶

While LNG forecasts suggest growing global LNG demand, EnergyQuest noted that Australian Government forecasts of continuing Australian LNG exports through to 2050 are too optimistic given present gas reserves underpinning them. EnergyQuest stated that “In the absence of new fields and new projects, Australian LNG exports in 2050 are likely to be zero” and “This is not because of net zero or potential lack of demand but because of insufficient developed natural gas reserves.”¹⁷ EnergyQuest also estimated that Australian LNG exports reached a record 80.9 million tonnes in 2021 representing a 3.7% increase on 2020 (2020: 78.0mt) and that Australian 2021 LNG export revenue totalled \$48 billion up 25% on 2020 reflecting the higher export volumes and stronger gas prices.¹⁸



According to analysis by Rystad Energy, total discovered volumes of oil and gas to November 2021 were 4.7 billion boe, setting the industry on course for the lowest new discovery volume in 75 years (12.5 billion boe were discovered in 2020).¹⁹ BP’s 2021 Statistical Review of World Energy showed global oil and gas consumption for 2020 of 33.2 billion bbls and 135.0Tcf respectively, demonstrating the challenge for the energy industry to meet future energy demands.

¹⁶ <https://www.spglobal.com/platts/en/market-insights/latest-news/energy-transition/110921-petrochina-expects-tight-global-natural-gas-supply-to-ease-in-2022>
¹⁷ Australian Financial Review article “LNG exports risk going ‘from hero to zero’” by Angela Macdonald-Smith dated 15th November 2021
¹⁸ EnergyQuest article “Australian LNG export revenue surges in 2021 but close to peak with increasing competition and a declining major gas field” dated 5 January 2022
¹⁹ <https://www.rystadenergy.com/newsevents/news/press-releases/2021-global-oil-and-gas-discoveries-projected-to-sink-to-lowest-level-in-75-years2/>

The role of Natural Gas in an Energy Transition World

Research by leading economic consulting firm Frontier Economics (“Frontier”) has shown that natural gas in the coming decades will continue to play an important role in securing Australia’s cleaner energy future by working in tandem with renewable energies to produce reliable and cleaner electricity. Frontier observed that while the operation of Gas-Powered Generation (“GPG”) had changed substantially in Australia’s National Electricity Market (“NEM”) over the past two decades, gas remains critical to meeting peak electricity demand and providing flexibility and reliable dispatchability within the grid. For instance, over recent years the trend in the NEM has been for GPG to start more often, but to operate for shorter periods of time once started. Requirements for flexible generation, which include gas, hydro and storage, will continue to increase as the penetration of intermittent weather dependent generation increases. Frontier also observed in electricity markets with a much larger share of renewable generation than the NEM such as Germany and the UK, GPG continues to play an important role in the electricity market.²⁰

Dollar amounts in this report are A\$ unless disclosed otherwise.

This ASX release has been authorised by the Empire Board of Directors.

For queries about this release, please contact:

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²⁰ Frontier Economics Pty Limited report entitled “The role of gas in the transition to net-zero power’ as prepared for the Australian Gas Industry Trust and Jemena, dated 8th November 2021

About Empire Energy

Empire Energy holds 28.9 million acres of highly prospective exploration tenements in the McArthur Basin and Beetaloo Sub-basins, Northern Territory. Work undertaken by the Company since 2010 demonstrates that the Eastern depositional Trough of the McArthur Basin, of which the Company holds around 80%, has enormous conventional and unconventional hydrocarbon potential. The Beetaloo Sub-basin, in which Empire holds a substantial position, has world-class hydrocarbon volumes in place and a ramp up in industry activity to appraise substantial discoveries already made by major Australian oil and gas operators is ongoing.

Empire announced the transformational acquisition of Pangaea Resources on 14th April 2021, further cementing Empire's position as a leading onshore Northern Territory oil and gas explorer and developer focused on the Beetaloo Sub-basin.

Empire Energy is an experienced conventional oil and natural gas producer with operations in the Appalachia region of the USA (New York and Pennsylvania). Empire has been successfully developing and producing oil and gas since 2006.



Carpentaria-2H site

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