

ASX:EEG

Operations Update

18 May 2022



Level 19, 20 Bond Street
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Operations Update

- Hydraulic stimulation of Carpentaria-2H is expected to commence in late June 2022
- Hydraulic stimulation is expected to take 15 to 20 days followed by an extended production test
- \$1.82 million in cash (excluding GST) received under the Australian Government's *Beetaloo Cooperative Drilling Program*
- Multi-year high gas prices in the United States (>US\$8.30 / mcf) are resulting in strong cash flow generation from Empire's US gas production assets
- Australian East Coast gas prices (at the Wallumbilla Hub) are currently >A\$30 / GJ
- Empire's current cash balance is \$16.7 million

Carpentaria-2H Hydraulic Stimulation and Extended Production Test

Empire is completing preparations for the hydraulic stimulation and extended production test ("EPT") of Carpentaria-2H ("C-2H"). Hydraulic stimulation of C-2H is expected to commence around the end of June 2022.

Civils works for hydraulic stimulation have been completed, and mobilisation of equipment is underway. Baseline water sampling of the shallow aquifers as required under NT environmental approvals is also complete. Delivery of some fracture stimulation chemicals had been delayed due to unprecedented global supply chain disruptions but are now en route to Australia and expected to arrive in mid-June.

C-2H has a ~1,345 metre horizontal section drilled and cased within the Velkerri Formation B Shale, ~1,250 metre of which is accessible to hydraulic stimulation. Each hydraulic stimulation stage is expected to be ~50 metres long, resulting in a program of up to 25 stages. Empire will utilise several hydraulic stimulation fluid mixes, including slickwater, high viscosity friction reducer ("HVFR"), and crosslinked gel to assess which design results in the best production

performance. Each fluid type has a dedicated perforation design and pumping strategy. It is likely, given the different hydraulic stimulation designs in C-2H, that there will be varying flow rates between fracture stages. The technical data acquired at C-2H will assist Empire with future well completion and hydraulic stimulation design to maximise production in future wells. Basin specific processes refined in the appraisal and development phases in shale plays such as the Beetaloo have been shown to increase well productivity over time. Empire is adopting the best global practices matured in the United States shale revolution to the Beetaloo.

Once commenced, hydraulic stimulation is expected to take 15 to 20 days. Flow back of C-2H will commence immediately following hydraulic stimulation. Stimulation water is expected to dominate initial flow back volumes as C-2H cleans up prior to commencement of the main phase of the EPT. This initial flow back period is anticipated to last approximately one month. Empire has regulatory approval to undertake an EPT for up to 90 days.

The hydraulic stimulation and production testing at C-2H will seek to improve stimulation fluid selection, perforation, and pumping strategy, and help refine the horizontal target window. It will also provide an early production type curve for development planning, a better understanding of gas composition and enhance Beetaloo specific completion designs.

The work at C-2H aligns with Empire's rapid commercialisation strategy to deliver gas volumes into existing infrastructure.



Fracture stimulation preparations underway at C-2H well pad

Beetaloo Cooperative Drilling Program

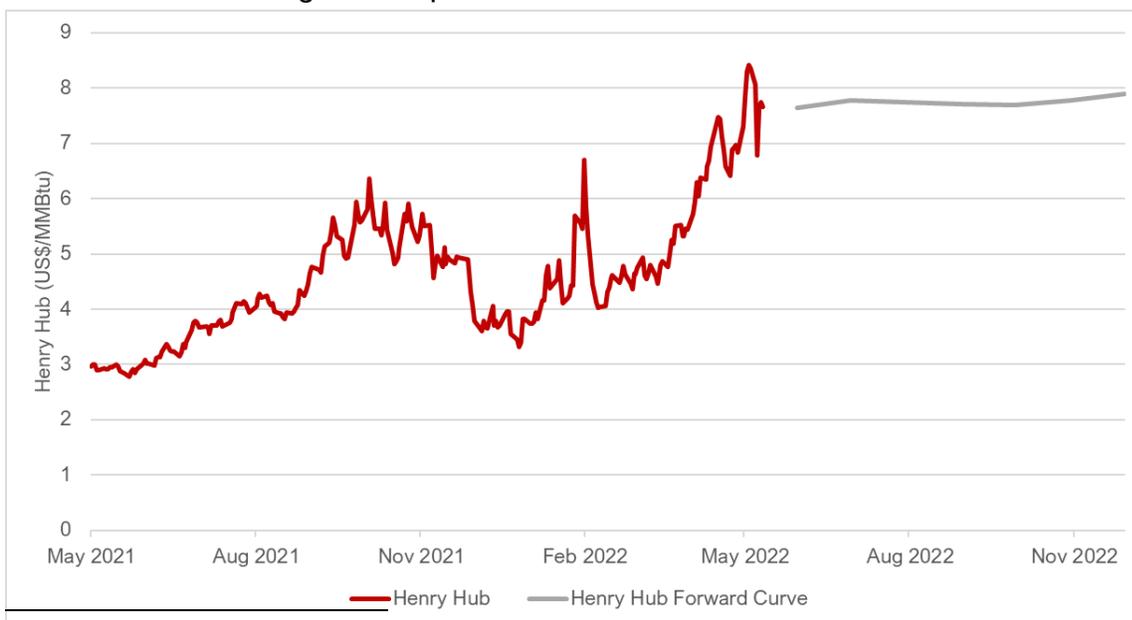
Empire has received \$1.82 million in cash (excluding GST), under the Australian Government’s *Beetaloo Cooperative Drilling Program*. The funds received represent reimbursement of past capital expenditures and will be applied to the forthcoming C-2H stimulation and EPT. Further cash receipts are expected to be received as Empire’s work program activities are progressed under its grant agreements with the Australian Government, including for some work that has already been completed.

US Operations Update

Empire’s US gas production assets continue to benefit from higher gas prices in the United States. The current NYMEX Henry Hub spot price is >US\$8.30 / mcf. The higher gas price environment has allowed Empire to layer additional hedging via US\$7.50 / MMBtu fixed price swaps for 25,000 / MMBtu per month for the period 1 June 2022 to 28 February 2023. Empire continues to maintain exposure to spot gas prices through put options which provide upside gas price exposure while ensuring downside price protection and unhedged production volumes.

Empire’s US net gas production averages ~140,000 mcf per month over the course of the year. The all-in sustaining break-even cash cost of Empire’s US assets including corporate overheads and distribution royalties, differentials to NYMEX Henry Hub benchmark and deferred hedging premiums is typically US\$3.00 - US\$3.50 / mcf.

In its Short-term Energy Outlook released 10 May 2022, the US Energy Information Administration (“EIA”) forecast Henry Hub to average US\$8.59 / MMBtu for H2 2022. The EIA expects gas prices to be supported by lower-than-average gas in storage levels over the northern summer and strong LNG export demand.¹



¹ <https://www.eia.gov/outlooks/steo/report/natgas.php>



C-2H well pad with stimulation fluid tank installed

This ASX release has been authorised by the Managing Director

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