

ASX ANNOUNCEMENT

29 November 2022

Certified Prospective Resources & Operational Update

Top End Energy Limited (**Top End** or the **Company**) (ASX:TEE) is pleased to provide an update on its activities, including the independent assessment by Discover Geoscience (**Discover**) of the Company's first Prospective Resources at the Coolibah Prospect on ATP 1069.

HIGHLIGHTS

- First independently assessed Prospective Resources on the Company's 100% owned permit in Queensland – Coolibah conventional gas prospect with mean Prospective Resources of 715 bcf as assessed by Discover Geoscience
- Permit strategically located close to existing infrastructure and east coast gas market
- Preparations ongoing for the acquisition of up to 120km of new 2D seismic in Q1 2023 to further mature and de-risk Devonian aged reservoir targets including the Coolibah prospect
- Positive second on country meeting with native title holders of EP 258 in the Northern Territory with near term grant in sight
- Preparations ongoing for 2023 work program on EP 258

ATP 1069

Coolibah Prospect

The Coolibah conventional gas prospect was identified following the completion of the Company's prospectivity review of its 100% owned Authority to Prospect (**ATP**) 1069.

The Coolibah prospect is a large structural feature (~278km²) identified from geological and geophysical studies focussed on assessing the conventional gas potential of Devonian aged formations including the Buri Limestone. The Buri Limestone is of equivalent age to the producing formation of the nearby Gilmore Gas Field.

The following Prospective Resources at the Coolibah Prospect have been independently assessed by Discover who estimate the current geological chance of success to be 8%:

Coolibah Prospect (100%)	PMean	P10	P50	P90
Gas in Place (bcf)	1,951	4,140	1,288	400
Prospective Resources (bcf) ¹	715	1,573	491	150

The estimated quantities of hydrocarbons that may potentially be recovered by the application of a future development project relate to undiscovered accumulations. These estimates have both an associated risk of discovery and a risk of development. Further exploration, appraisal and evaluation is required to determine the existence of a significant quantity of potentially recoverable hydrocarbons.

Table 1: Coolibah Prospective Resources independently assessed by Discover

The intention of the forward work program is to further increase the geological chance of success of the prospect ahead of a potential exploration well.

While multiple plays exist across the permit, the Company focused its technical review and assessment on conventional natural gas potential in the under-explored Adavale Basin. Digitising vintage seismic data and undertaking Pre-Stack Time Migration processing of 220km of vintage seismic lines formed the basis for the review of the play fairways, dry hole analysis, stratigraphic interpretation, charge modelling and prospect identification.

A proven working petroleum system exists in the Adavale Basin as evidenced by the Gilmore Gas Field which is situated approximately 50km west of ATP 1069. The prospectivity assessment carried out by the Company has resulted in the identification of three high graded areas of interest, with the Coolibah Prospect in the southwest portion of the block of particular interest. All high graded areas are focussed on the Adavale Basin portion of the Permit.

¹ The Prospective Resource estimates have been prepared using the probabilistic method and are presented on an unrisks basis. In a probabilistic resource distribution, P90 (Low), P50 (Best), P10 (High) estimates represent the 90%, 50% and 10% probability respectively that the quantity recovered will equal or exceed the estimate assuming a success case in the prospect.

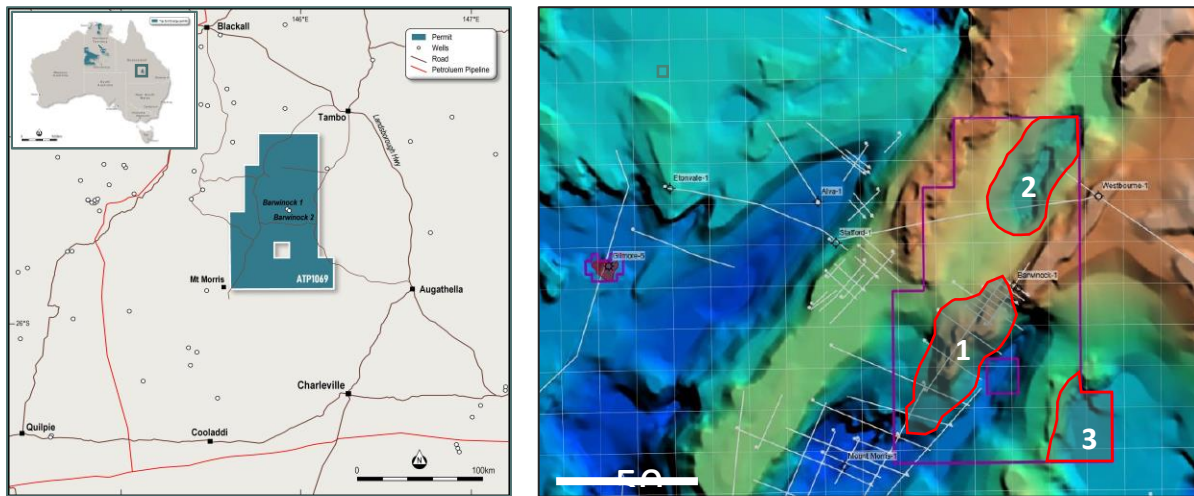


Figure 1: Top End's 100% owned ATP 1069 and high graded areas of interest

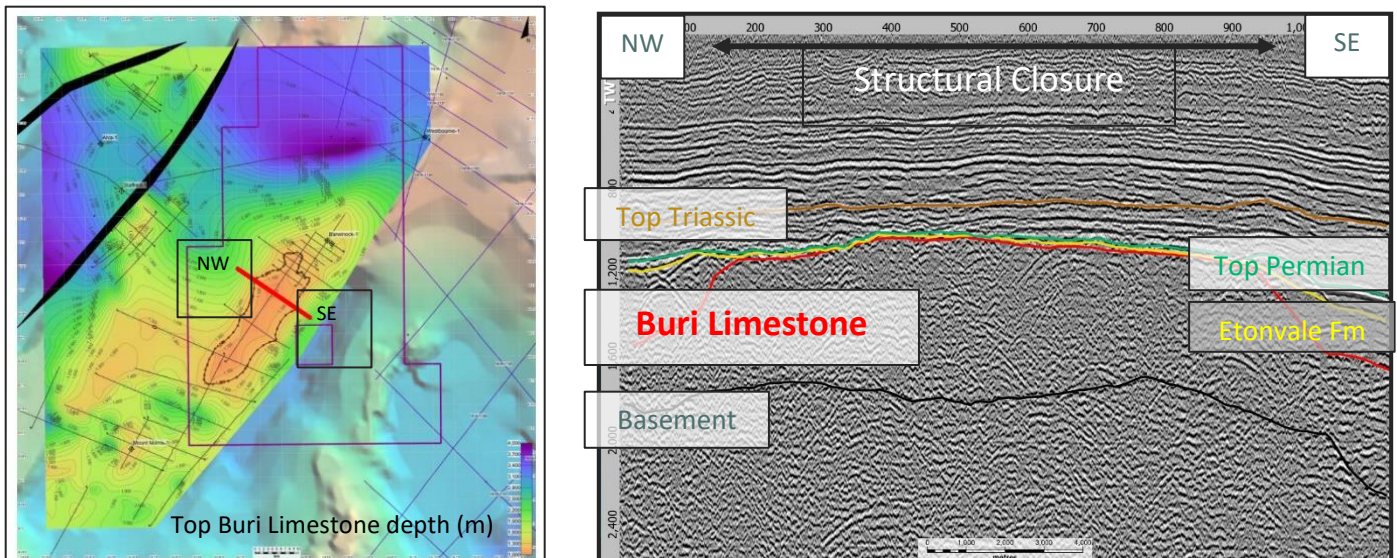


Figure 2: The Coolibah prospect on ATP 1069

2D Seismic Acquisition

On the back of the work completed to date, the Company has refined the scope of the intended infill seismic acquisition of up to 120km of new 2D lines. The focus of the campaign will be the Coolibah Prospect and is intended to be undertaken in Q1 2023.

The objectives of the infill seismic campaign will be to reduce subsurface geological risk by:

- assessing the likely distribution and quality of hydrocarbon reservoirs and confirmation of a structural closure with sealing capacity; and

- identifying possible drilling locations for an exploration well to be drilled later in 2023.

The Company has provisioned seismic contractors to undertake the acquisition and continues to negotiate land access agreements with relevant owners for the revised campaign.

Northern Territory

Exploration Permit 258

Earlier this month, the second on country meeting (**OCM**) with the native title holders of Exploration Permit (**EP**) 258 was held in Tennant Creek. The purpose of this meeting was for native title holders to decide whether to agree to the terms of the proposed exploration agreement ancillary to an agreement under section 31(1)(b) of the Native Title Act (the **Exploration Agreement**). Heading into the meeting, the Company had reached an agreed position with representatives of the Northern Land Council (**NLC**) on the in-principle terms of the Exploration Agreement subject to instruction from native title holders, and amended for feedback from the native title holders following the first OCM in September.

All key decision makers from the native title holder group were in attendance at the November OCM and feedback from the NLC was positive. During the meeting, no further changes to the Exploration Agreement were proposed, and there were no further questions for the Company in relation to the intended exploration activities on the permit. A number of key decision makers who were unable to attend the first OCM have, however, requested more time to consider the agreement. The Company is working with the NLC to determine the most timely and efficient means of facilitating a decision, acknowledging the upcoming ceremonial business period in December.

In the meantime, the Company continues to progress key approvals and access agreements to maintain the timetable for the intended 2023 work programs, including the planned acquisition of up to 150km of 2D seismic survey in H1 2023.

The objective of the proposed seismic survey is to confirm the extension of the proven play system that hosts the significant discoveries which have been made in the Beetaloo Basin, including the conventional Bessie Sandstone and unconventional Velkerri Shale reservoirs, into the Company's application areas on the Southern McArthur Basin margin, and ultimately aid in the identification of drilling targets.

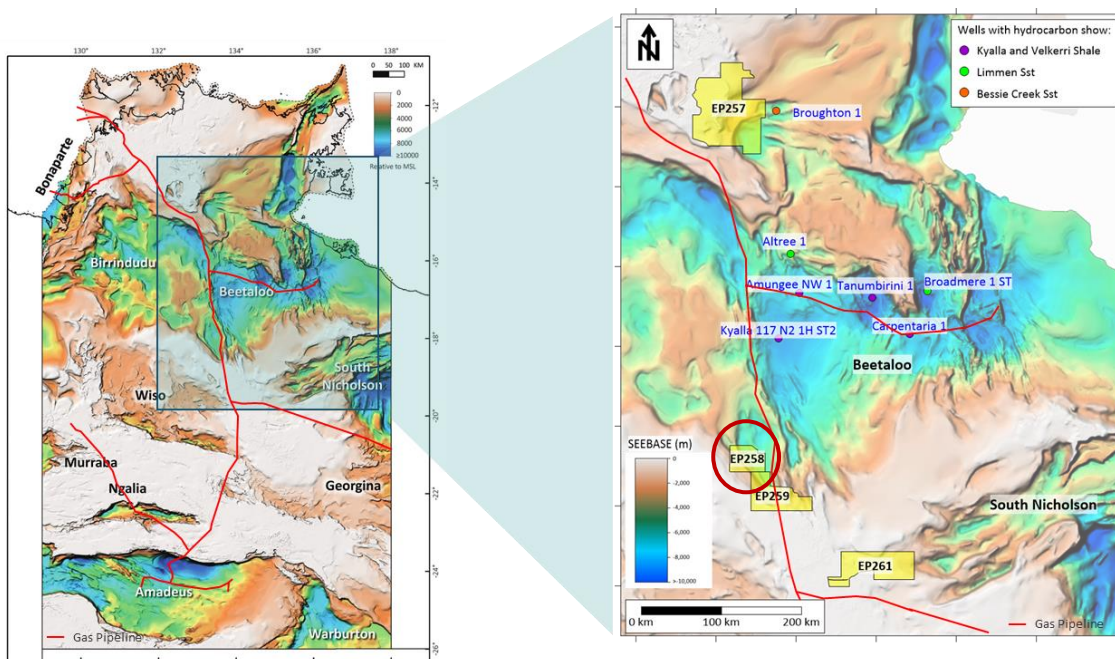


Figure 3: Top End's key permits in the Greater McArthur Basin

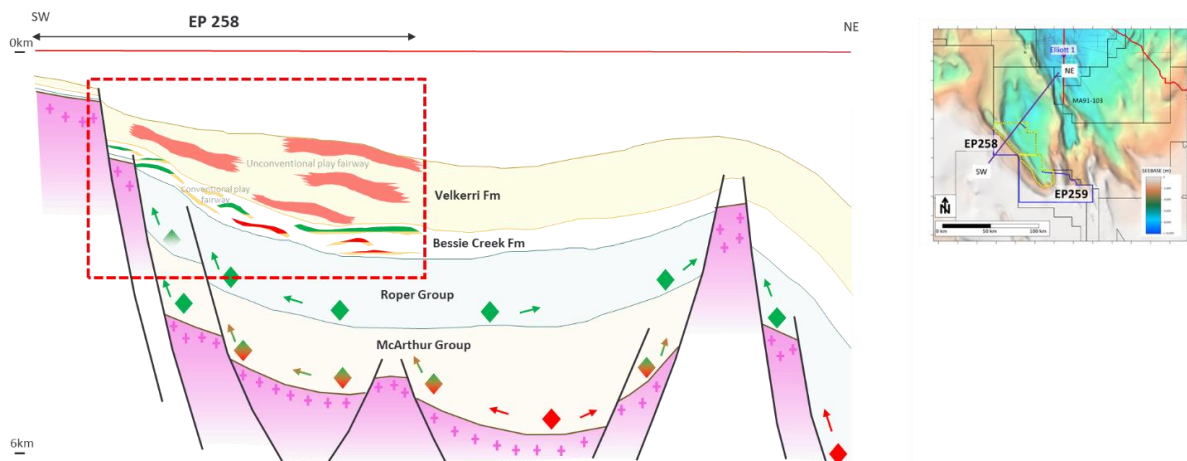


Figure 4: Regional schematic highlighting the potential of the untested southern margin of the Greater McArthur Basin and EP 258

Regional Updates

The Company also notes the recent updates from operators in the very active Beetaloo Basin, a sub-basin of the Greater McArthur Basin:

- On 17 November 2022, Empire Energy Group announced the drilling of the Carpentaria-3H well to a total depth of 4,460 metres, of which 2,623 meters was horizontal section, representing the longest horizontal section drilled in the Beetaloo to date and a forecast total drilling cost of <\$11 million. Fracture

stimulation operations and production testing are scheduled to commence in early December; and

- On 10 November, Tamboran Resources announced that the Amungee 2H development well had spudded, targeting a vertical depth of 2,450 meters prior to drilling a 1,000 metre horizontal section with the primary target of the Mid-Velkerri "B" Shale. Following drilling, Tamboran expects to commence a hydraulic fracture stimulation with a US style unconventional shale design.

The significant developments and optimisations that regional operators are continuing to make will be instructive for the Company as it progresses its key permit applications in the Northern Territory.

Resource Estimation Methodology

The resource estimates have been prepared by Discover in accordance with the definitions and guidelines set forth in the Petroleum Resources Management System, 2018, approved by the Society of Petroleum Engineers.

The primary target is the Buri Limestone, a reservoir with the potential to be productive for gas within ATP 1069 and the Adavale Basin more generally.

The Prospective Resource assessment has been conducted by Dave Gilbert. Dave is a subsurface advisor for Discover and has over 40 years of global experience evaluating and managing oil and gas exploration assets and is a qualified petroleum reserves and resources evaluator (QPRRE) as defined by ASX listing rules.

Discover is a well-known and respected independent energy advisory firm, with a history of providing impartial advice to the petroleum industry including providing Independent Technical Specialist Reports (ITSRs) and Competent Persons Reports (CPRs) for stock exchange and regulatory requirements. For further information please visit www.discovergeoscience.com.

In response to the recent developments, the Company's Managing Director Oliver Oxenbridge commented: *"we are excited to announce the company's maiden Prospective Resource. The identification of the Coolibah Prospect and independent certification from Discover is both a validation of the systematic approach we've taken to our technical assessment of the asset and an attractive prospect for the team to focus on in next year's work program. Consistent with the Company's interest in pursuing opportunities in the under-explored Adavale Basin, the onshore conventional gas potential and proximity to pipeline infrastructure and east coast gas markets make Coolibah a potentially very compelling commercial proposition."*

Active in the NT for less than a year, the fact that we've managed to secure two on country meetings within months of each other is a testament to the stakeholder relationships that we have built to date and continue to build. It's great that things are moving forward, and we are confident we've landed a fair and inclusive exploration agreement with the NLC. The team is very excited to build on the positive engagement we've already had with the native title holders of EP 258 and commencing a journey to unlock material value for all involved."

- END -

This announcement was authorised for release by the Board of Directors of Top End Energy Limited.

For more information please contact:

Shane Hartwig
Company Secretary
+61 8 6245 9836
info@topendenergy.com.au

About Top End Energy Limited

Top End aims to be a leading Australian diversified energy provider at the forefront of the energy transition. Combining an attractive portfolio of granted and in-application petroleum permits in Queensland and the Northern Territory, with intentions to pursue complementary clean energy solutions and achieve a target of net zero (Scope 1 & 2) emissions.

For further information on Top End Energy Limited please visit www.topendenergy.com.au

About Discover Geoscience

Discover Geoscience was established in 2016 to offer advisory services to the oil and gas industry and has built up its client portfolio, global experience and pool of associates and partners to service the oil and gas industry, the minerals and mining sector, and now the emerging new energies sector.

For further information on Discover Geoscience please visit www.discovergeoscience.com