

31st October 2022

QUARTERLY ACTIVITIES REPORT FOR PERIOD ENDING 30 September 2022

Top End Energy Limited ("TEE or "the Company") (ASX:TEE) is pleased to present its quarterly activities report for the quarter ended 30 September 2022.

HIGHLIGHTS

- Updated prospectivity review of conventional gas plays over ATP 1069 underway following the reprocessing of ~220km of existing 2D seismic data and the scanning and vectorising of other existing data to build an updated basin prospectively model ahead of the planned acquisition of up to 120 km of new 2D seismic.
- Positive initial consultation with the native title holders of EP 258, representing one of the first on country meetings for the grant of a new permit since the lifting of the moratorium on hydraulic fracturing in 2018.
- In-principle terms of the ancillary exploration agreement fully agreed with the Northern Land Council, subject to final instruction from native title holders at upcoming final decision meeting.
- Ongoing preparations for H1 2023 exploration activities on EP 258 in anticipation of receiving formal grant of the permit, subject to the final decision meeting of the native title holders and execution of the Section 31 Deed between the NT government, native title holders and the Company.
- Study commissioned into natural Hydrogen prospectivity across the Company's existing portfolio.
- Strengthening the board and management team with the appointment of Dr Mike Fischer as a Non-Executive Director and Marshall Hood as Exploration Manager.
- The Company remains well-funded to deliver its near-term activities.
- Outlook for natural gas remains strong in the wake of continued domestic and international supply concerns and geo-political destabilisation.

ATP 1069 (QUEENSLAND)

ATP 1069 is a granted hydrocarbon permit located 130km north-west of Charleville in Central Queensland, covering an area of approximately 4,185km².

The Company has identified multiple plays across the Permit and intends primarily to pursue potential conventional natural gas prospectivity in the deeper Adavale Basin towards the southern part of the Permit. The Gilmore gas field, situated 50 km west of the Permit, has demonstrated commercial conventional gas production from the Lissoy Sandstone and Log Creek Formation of the Adavale Basin. Initial seismic interpretation suggests these formations may be present within ATP 1069, but no wells have been drilled to these depths on the Permit. The Company's ongoing and intended 2022 work program is targeted to better understand this potential conventional gas prospectivity and ultimately high-grade drillable prospects.

The Permit is strategically located in proximity to existing infrastructure and the east coast gas market, which is forecast to face significant near-term supply shortfall. Strong support for natural gas is expected in light of sustained underinvestment in supply, ongoing international geo-political tensions and a refocusing on security of energy supply.

The Company holds a 100% ownership interest in the Permit.

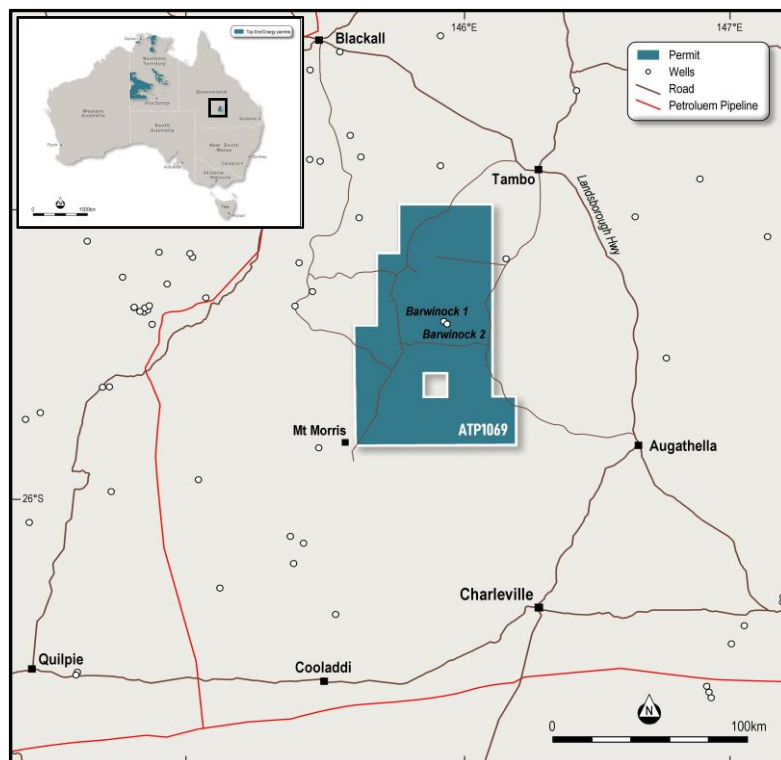


Figure 1: TEE's 100% owned permit in Queensland (ATP 1069)

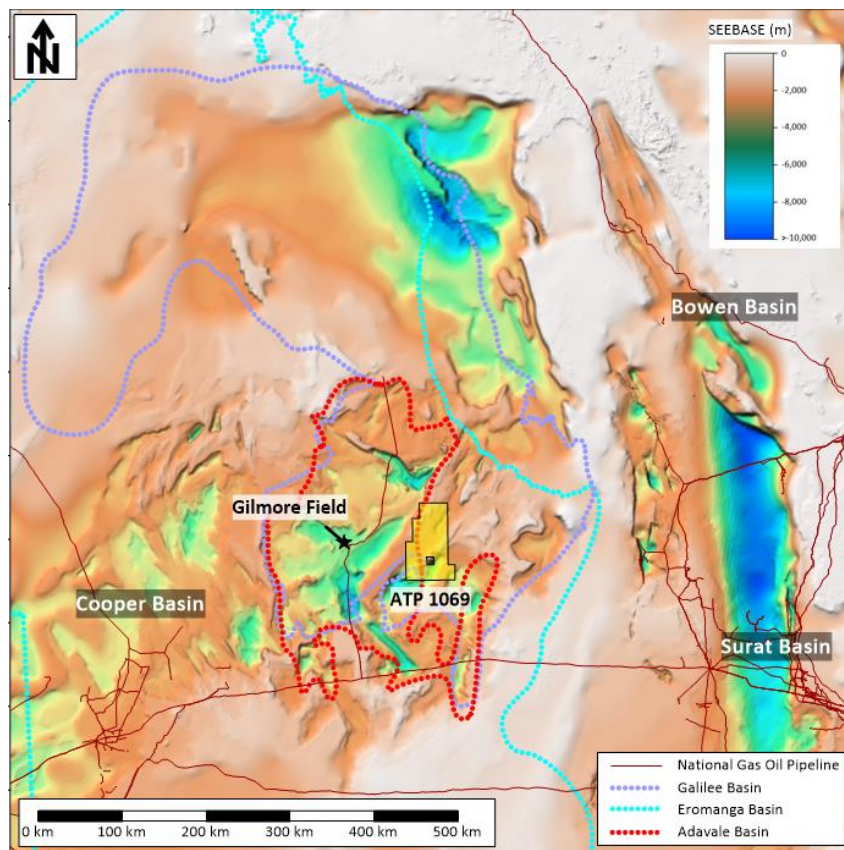


Figure 2: Location of ATP 1069 and underlying Galilee, Eromanga and Adavale Basins

Key activities undertaken on ATP 1069 during the quarter included:

- The reprocessing and interpretation of existing 2D seismic data. The Company engaged Howman Seismic to digitise analogue seismic data and undertake pre-stack time migration processing of ~220 km of vintage seismic lines. The reprocessed data, together with additional scanned and vectorised data, was integrated into updated hydrocarbon reservoir, charge and migration modelling of the Adavale Basin.
- Updated prospectivity review of potential conventional gas opportunities on the permit. The Company engaged Discover Geoscience to assist in undertaking geological and geophysical ("G&G") studies, with key objectives being:
 - to mature the conventional gas prospectivity of the Adavale Basin in the southern portion of the Permit;
 - optimise the location of the planned 2D seismic acquisition campaign; and
 - identify potential structure, drilling leads and reservoir targets.

- Preparation for the planned acquisition of up to 120 km of new 2D seismic data. The Company initiated land access discussions with relevant landowners and is engaging with potential seismic contractors to undertake the acquisition.

TG PROJECT (NORTHERN TERRITORY)

The Company holds a 50% beneficial interest in 30 permit applications across the Northern Territory ("NT"), covering ~160,000 km². The Company has prioritised key permits based on initial technical assessments of the available data. Of these key permits, the Company is engaging with the Northern Land Council ("NLC"), native title holders and traditional owners to reach exploration agreements ahead of the formal grant and work program approvals for EP 258 and potentially EP 259.

EP 258 and EP 259 are located on the edge of the Greater McArthur Basin, south of discoveries within the Velkerri and Kyalla Shales and the conventional Moroak and Bessie Creek Sandstone reservoirs. Although there are no seismic data on the permits, seismic lines ending north of the permits suggest that both the conventional Bessie Sandstone and unconventional Velkerri Shale may be present within the deeper basin sections of the permits. The Velkerri Shale is a shale gas target for operators such as Santos, Origin and Empire Energy across the Beetaloo sub-basin.

The primary objective of the intended initial exploration activities, subject to receiving formal grant of permits, is to confirm the presence of the conventional Bessie Sandstone and unconventional Velkerri Shale formations.

While EP 258 and EP 259 are the near-term focus in the NT, the Company also continues to pursue other prioritised permit applications, targeting the formal grant of additional applications in 2023.

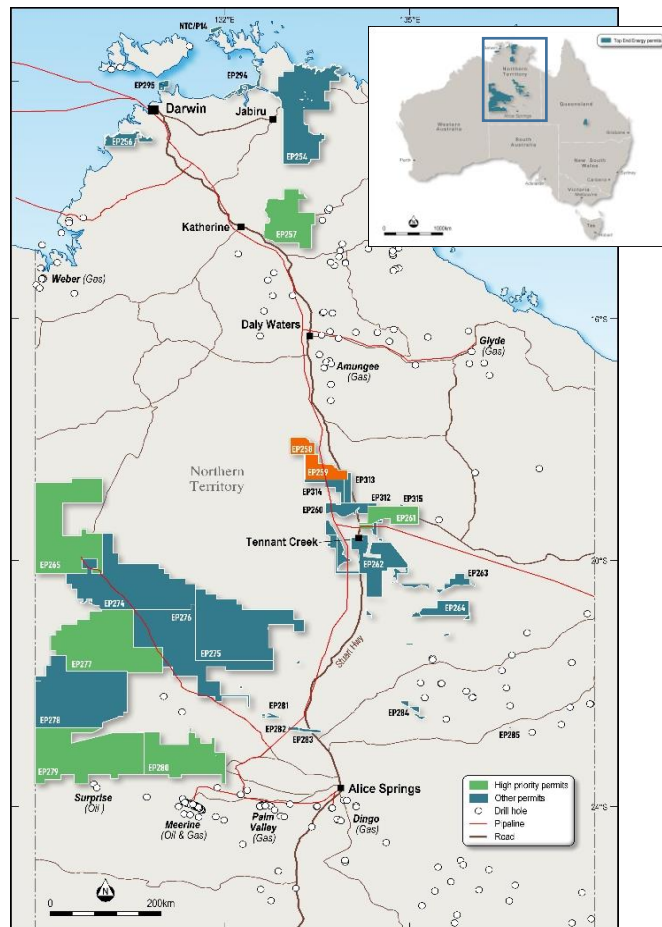


Figure 3: TEE's portfolio in the NT and prioritised permit applications

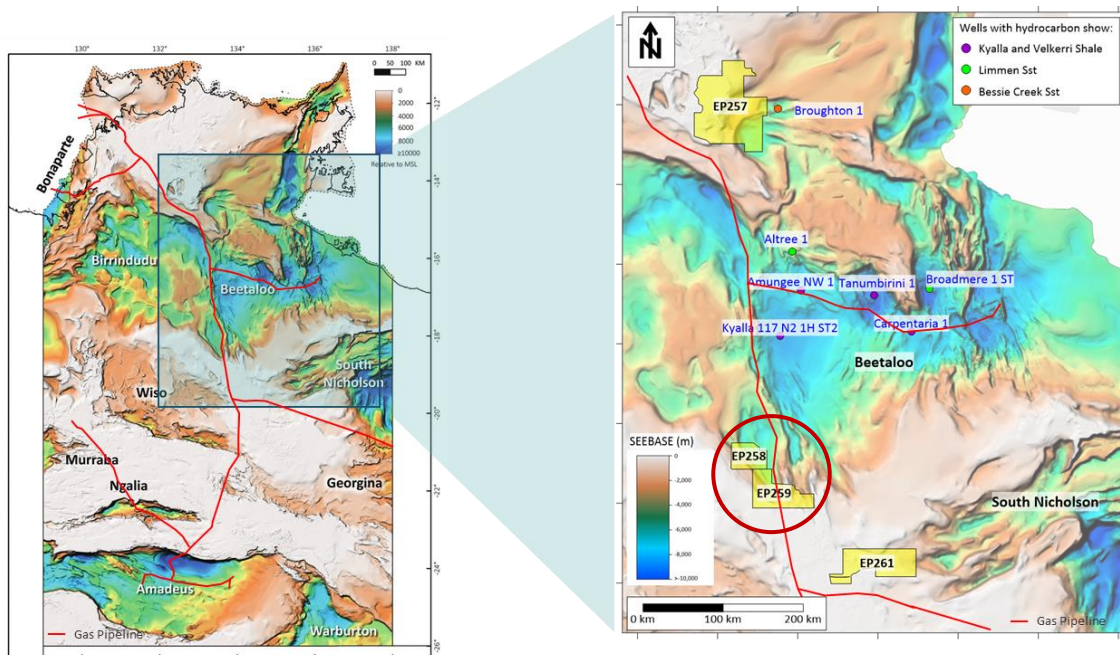


Figure 4: TEE's key permits in the Greater McArthur Basin

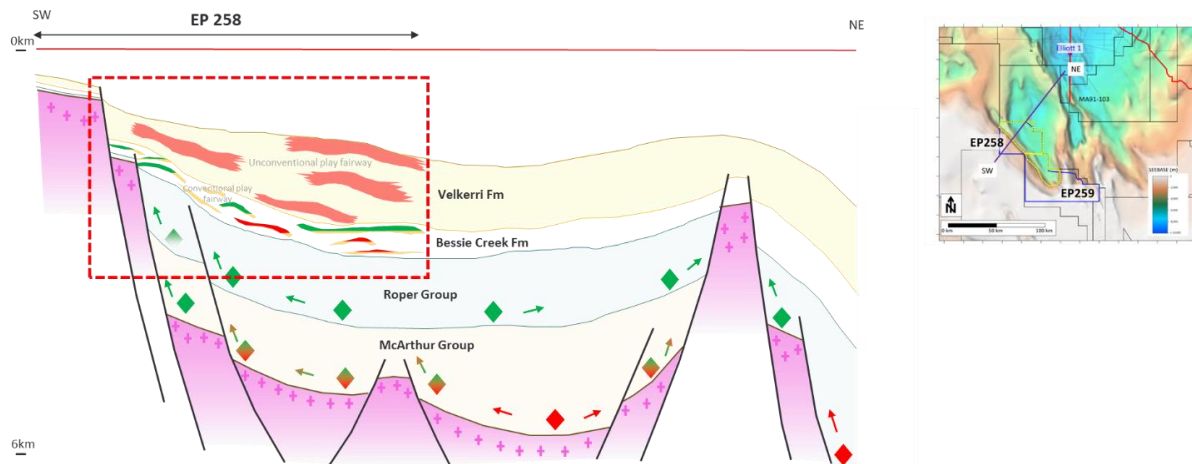


Figure 5: Regional schematic highlighting the potential of the untested southern margin of the Greater McArthur Basin and EP 258

Key activities undertaken on the TG Project during the quarter included:

- The Company reached an agreed position with representatives of the Northern Land Council ("NLC") on the in-principle terms of an exploration agreement ancillary to an agreement under section 31(1)(b) of the Native Title Act (the "Exploration Agreement") for EP 258, subject to final instructions from native title holders. The execution of the Exploration Agreement by the native title holders is the key pre-requisite for achieving formal grant of the permit.
- An initial consultation was held with the native title holders of EP 258 to introduce the Company, provide an overview of potential activities to be undertaken by the Company during the exploration term, and provide an opportunity for the NLC to discuss the terms of the proposed Exploration Agreement with the native title holders. The Company had positive engagement with native title holders throughout the meeting and the latter have requested time to reflect on the proposed agreement ahead of a final decision meeting.
- The Company has continued to progress key approvals and access agreements required for the Company to undertake the planned acquisition of up to 150km of 2D seismic survey in H1 2023, including:
 - submission of an application for an Aboriginal Areas Protection Authority certificate in accordance with the proposed Exploration Agreement and provisioning for necessary archaeological surveys to be undertaken;
 - drafting of the Environmental Management Plan ("EMP") and engagement with contractors for undertaking necessary environmental and ecological baseline studies; and
 - engagement with the relevant pastoral lease holders regarding land access.

CLEAN ENERGY

In line with TEE's stated intentions to leverage its existing footprint and explore complimentary clean energy solutions, the Company commenced assessing the potential for natural Hydrogen and Helium across the existing portfolio.

During the quarter, the Company commissioned Cryptid Energy Consultants to undertake an initial study to assess the potential for natural Hydrogen. The Company's portfolio has been tiered into priority areas and will be addressed in phases, with the initial focus being the McArthur Basin margin assets. Basin margins where deep seated faults exist, may be conduits for natural Hydrogen migration, providing the opportunity for Top End to explore for natural Hydrogen and hydrocarbons concurrently.

PLANNED ACTIVITIES FOR Q4 2022

During the December quarter, the Company intends to undertake the following activities on its assets:

- Completion of G&G studies on ATP 1069 to optimise location for the planned 2D seismic acquisition and identification of potential drilling leads and reservoir targets.
- Completion of preparations for the planned seismic acquisition and potential undertaking of the acquisition.
- Potential plug and abandonment of the existing Barwinock 2 well drilled on ATP 1069 in 2019.
- Facilitation and attendance of the final decision meeting for the native title holders of EP 258 for the approval of the Exploration Agreement.
- Target execution of the Section 31 Deed between the NT Government, the native title holders of EP 258 and the Company, ahead of formal grant of the permit.
- Subject to approval from the native title holders of EP 258, the Company intends to undertake an archaeological survey and ecological and environmental baseline monitoring studies on EP 258, as required by both the proposed Exploration Agreement and the EMP for the planned 2D seismic acquisition.
- Complete the drafting of the EMP for EP 258 and continue to progress land access engagement with the pastoral lease holders.
- Continue the engagement with the respective land councils to progress the Company's other prioritised permit applications in the NT, including EP 259.
- Completion of the initial study assessing the potential for natural hydrogen on the Company's McArthur Basin margin assets. Following the initial study,

decisions on field surveys and sampling will be made for incorporation into the Company's forward exploration program.

- The Company will also continue to explore collaboration and partnering opportunities with other third parties active in the nascent natural hydrogen and helium space in Australia.

CORPORATE

- The Company appointed Dr Mike Fischer as a Non-Executive Director¹. Dr Fischer has almost 40 years of international oil and gas upstream experience having held senior executive and director roles in both large and small cap energy companies, with a proven track record in building companies, delivering exploration success and realising value for shareholders.
- The Company also appointed Marshall Hood as Exploration Manager. Mr Hood has 18 years of technical, operational and commercial experience across the energy sector including upstream oil and gas, hydrogen and small-scale LNG, and a successful exploration track record with more than 15 TCF of gas discovered across multiple operated assets.
- During the quarter, 8,537,500 fully paid ordinary shares and 8,537,000 options to purchase fully paid ordinary shares with an exercise price of \$0.30 and expiry date of 30/11/2025 were released from escrow.
- As per ASX Listing Rule 5.4.1, there were no substantive oil and gas exploration activities undertaken during the quarter.
- As per ASX Listing Rule 5.4.2, there were no substantive oil and gas production and development activities undertaken during the quarter.
- Section 6.1 of the Appendix 5B provides for an amount paid to related parties of circa \$131k being circa \$122k for directors' fees and salaries (including accrued fees from prior quarter) and circa \$9k for rent of the corporate office.
- The Company remains well-funded with cash of circa \$4.9m at 30 September 2022.
- In accordance with Listing Rule 5.4.4, as the 30 September 2022 quarter was in a period covered by a 'use of funds' statement in the IPO Prospectus, below is a comparison of the Company's actual expenditure to 30 September 2022 against the estimated expenditure in the 'use of funds' statements:

¹ Pursuant to the terms of Dr Fischer's Letter of Appointment, the Company is proposing, subject to obtaining shareholder approval, to issue Dr Fischer 500,000 Options to purchase fully paid ordinary shares in the Company, exercisable at \$0.30 each on or before 30 November 2025.

Use of Funds (A\$) ²	Per IPO Prospectus (2-year period)	QTD 30 June 2022	QTD 30 September 2022	Investment Since Listing
Exploration Budget - ATP 1069 ³	2,808,000	8,755	30,001	38,756
Exploration Budget - TG Project ⁴	1,000,000	14,730	169,429	184,159
Project generation and feasibility – Green Energy and / or Carbon Abatement Projects ⁵	450,000	-	4,570	4,570
Corporate and administration costs ⁶	1,463,250	492,357	259,872	752,229
Expenses of the Offer ⁷	778,206	567,826	-	567,826
Unallocated Working capital	465,544	-	-	-
Total funds	6,965,000	1,083,668	463,872	1,547,540

² The Company remains on track in terms of meeting its business objectives in accordance with the proposed use of funds.

³ The funds spent by the Company relate to seismic reprocessing and interpretation activities and the planning and preparation of the future work program, with completion of G&G studies and a potential seismic acquisition of up to 120 km to be undertaken in Q4. Limited funds have been spent on the permit to date given the Company's focus on better understanding prospectivity potential following the Company's acquisition of the asset earlier in 2022; the Company anticipates expenditure to increase significantly in the coming quarters as it pursues more capital-intensive exploration activities on the permit.

⁴ The funds spent by the Company relate to progressing application grant for prioritised permits, including attending an on-country meeting with the native title holders of EP 258, and preparation for the H1 2023 work program.

⁵ Preliminary expenditure on exploring opportunities for green energy and / or carbon abatement projects have been included in "Corporate and administration costs".

⁶ Includes legal, consulting, accounting, audit and directors' fees and other general corporate costs. The Company has incurred costs in relation to project due diligence, progressing its business activities and indirect administrative costs in preparation of the IPO Prospectus.

⁷ Expenses of the offer totalled \$1,064,387. Additional legal, consulting, accounting and audit costs were incurred between the IPO Prospectus dated 24 November 2021 and the completion of the IPO in April 2022 as a result of the Company having to issue a replacement prospectus and a supplementary prospectus. The Company continues to expect the IPO funds raised to enable two years of full operations.

2022 SEPTEMBER QUARTER – ASX ANNOUNCEMENTS

This Quarterly Activities Report contains information extracted from the following ASX market announcements:

Release of Shares from Escrow	5 July 2022
Release of Options from Escrow	6 July 2022
Non-Executive Director Appointment	22 July 2022
Operational Update and Appointment of Exploration Manager	3 August 2022
Release of Shares and Options from Escrow	16 August 2022
Operational Update	5 September 2022
Northern Territory Update	4 October 2022

- END -

This release is authorised by the Board of Directors of Top End Energy Limited

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ABOUT TOP END ENERGY

Top End Energy 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.

The Company currently holds interests in circa 166,000 km² (gross) granted and in-application permits, with prioritised permits in proximity to existing pipeline infrastructure. The Company's near-term activities are focused on working towards de-risking the prospectivity potential the Company has identified across these assets.

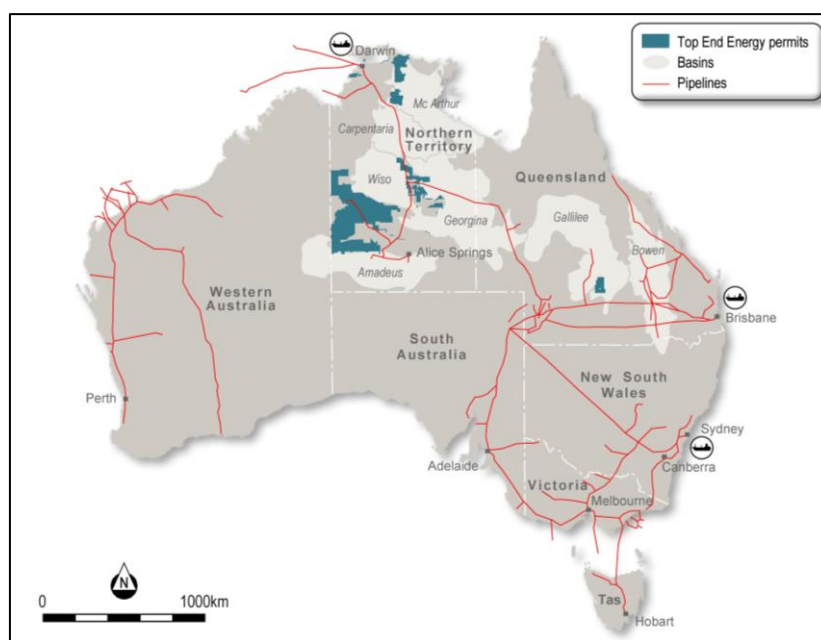


Figure 6: TEE's asset portfolio

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

Appendix 1: Tenement Schedule (ASX Listing Rule 5.4.3)

Petroleum tenements held by the Company and its subsidiaries at the end of the quarter and their location.

Permit / Application ⁸	Location	Interest %	Holder
ATP 1069	Queensland	100	Tomorrow Energy Pty Ltd
EP(A) 254	Northern Territory	50	NT Gas Aust Pty Ltd
EP(A) 256	Northern Territory	50	NT Gas Aust Pty Ltd
EP(A) 257	Northern Territory	50	NT Gas Aust Pty Ltd
EP(A) 258	Northern Territory	50	Territory Gas Aust Pty Ltd
EP(A) 259	Northern Territory	50	Territory Gas Aust Pty Ltd
EP(A) 260	Northern Territory	50	Territory Gas Aust Pty Ltd
EP(A) 261	Northern Territory	50	Territory Gas Aust Pty Ltd
EP(A) 262	Northern Territory	50	Territory Gas Aust Pty Ltd
EP(A) 263	Northern Territory	50	Territory Gas Aust Pty Ltd
EP(A) 264	Northern Territory	50	Territory Gas Aust Pty Ltd
EP(A) 265	Northern Territory	50	NT Gas Aust Pty Ltd
EP(A) 274	Northern Territory	50	NT Gas Aust Pty Ltd
EP(A) 275	Northern Territory	50	NT Gas Aust Pty Ltd
EP(A) 276	Northern Territory	50	NT Gas Aust Pty Ltd
EP(A) 277	Northern Territory	50	NT Gas Aust Pty Ltd
EP(A) 278	Northern Territory	50	NT Gas Aust Pty Ltd
EP(A) 279	Northern Territory	50	NT Gas Aust Pty Ltd
EP(A) 280	Northern Territory	50	NT Gas Aust Pty Ltd
EP(A) 281	Northern Territory	50	NT Gas Aust Pty Ltd

⁸ The Company's petroleum tenements in the Northern Territory are permit applications. Grant of applications is subject to reaching agreements with traditional owners and native title holders pursuant to the Aboriginal Land Rights (Northern Territory) Act 1976 (Cth) and the Native Title Act 1993 (Cth)

EP(A) 282	Northern Territory	50	NT Gas Aust Pty Ltd
EP(A) 283	Northern Territory	50	NT Gas Aust Pty Ltd
EP(A) 284	Northern Territory	50	NT Gas Aust Pty Ltd
EP(A) 285	Northern Territory	50	NT Gas Aust Pty Ltd
EP(A) 294	Northern Territory	50	NT Gas Aust Pty Ltd
EP(A) 295	Northern Territory	50	NT Gas Aust Pty Ltd
EP(A) 312	Northern Territory	50	Territory Gas Aust Pty Ltd
EP(A) 313	Northern Territory	50	Territory Gas Aust Pty Ltd
EP(A) 314	Northern Territory	50	Territory Gas Aust Pty Ltd
EP(A) 315	Northern Territory	50	Territory Gas Aust Pty Ltd
NTC/P(A) 14	Northern Territory	50	NT Gas Aust Pty Ltd

The Company neither acquired nor disposed of any petroleum tenements in the quarter. No farm-in or farm-out agreements were entered into during the quarter.

Appendix 2: Summary of cash expenditure per project

Project	Cash Expenditure A\$'000
Exploration Budget - ATP 1069	30
Exploration Budget - TG Project	169
Green Energy and / or Carbon Abatement Projects	5