

28th April 2023

QUARTERLY ACTIVITIES REPORT FOR PERIOD ENDING 31 March 2023

Top End Energy Limited ("TEE or "the Company") (ASX:TEE) is pleased to present its quarterly activities report for the quarter ended 31 March 2023.

HIGHLIGHTS

- Awarded a 100% interest in Area L22-6 in Western Australia, a 6,300km² area containing the untested and historically overlooked basin margin extension to the proven Amadeus Basin
- Native title holders of Greater McArthur Basin EP 258 have agreed to enter into an exploration agreement with the Company following third on country meeting. This is a critical milestone reached and unlocks the path for near-term grant of EP 258 which would represent the first EP to be granted in the NT since 2015
- Contract awarded to Xcalibur for the acquisition of circa 2,500 km lines of gravity gradiometry data across EP 258, to commence post-permit grant. The survey to provide high resolution gravity gradient datasets to aid structural interpretation and optimise acquisition parameters and location of planned 2D seismic survey
- Contract awarded to Terrex to execute planned 120km 2D seismic acquisition over the Company's large Coolibah Prospect in Queensland (PMean prospective resource of 715 bcf) in Q2 2023
- Phase I natural Hydrogen assessment completed with highly prospective play fairways for natural Hydrogen and Helium identified across Company's prioritised NT acreage
- Commencement of native title engagement for other prioritised blocks in the McArthur and Amadeus basins

ATP 1069 (QUEENSLAND)

ATP 1069 (the “Permit”) is a granted hydrocarbon permit located 130km north-west of Charleville in Central Queensland, covering an area of approximately 1,048km². The Company holds a 100% ownership interest in the Permit.

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 approximately 75 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 the Permit, but no wells have been drilled to these depths on the Permit. The Company’s ongoing and intended 2023 work program is targeted to further increase the chance of geological success of the Coolibah conventional gas prospect and ultimately refine drilling locations for a potential exploration well.

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 following Prospective Resources at the Coolibah Prospect have been independently assessed by Discover Geoscience (“Discover”):

Coolibah Prospect (100%) ¹	PMean	P10	P50	P90
Gas in Place (bcf)	1,951	4,140	1,288	400
Prospective Resources (bcf) ^{2 3}	715	1,573	491	150

Table 1: Coolibah Prospective Resources independently assessed by Discover

In accordance with the Company’s obligations under the *Petroleum and Gas (Production and Safety) Act 2004*, 1,012 sub-blocks of the Permit were relinquished in the quarter. The retained sub-blocks were specifically selected by the Company to

¹ Please see ASX announcement “Certified Prospective Resource & Operational Update” (29 November 2022); the Company is not aware of any new information or data that materially affects the information included in the ASX announcement and all material assumptions and technical parameters underpinning the estimates in the ASX announcement continue to apply and have not materially changed.

² **CAUTIONARY STATEMENT: 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.**

³ 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.

include the broader Coolibah prospect and surrounding area, as well as the two wells previously drilled on the Permit (Barwinock 1 and Barwinock 2). Consequently, the relinquishment should not impact the Company's primary intended work activities for the Permit, which are focused on progressing the Coolibah prospect to drill-ready status.

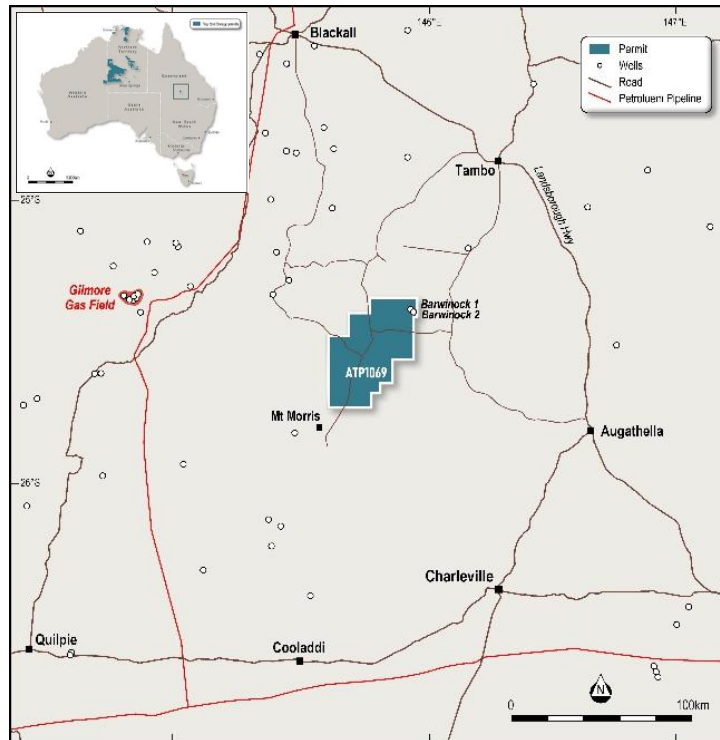


Figure 1: TEE's 100% owned permit in Queensland (ATP 1069)

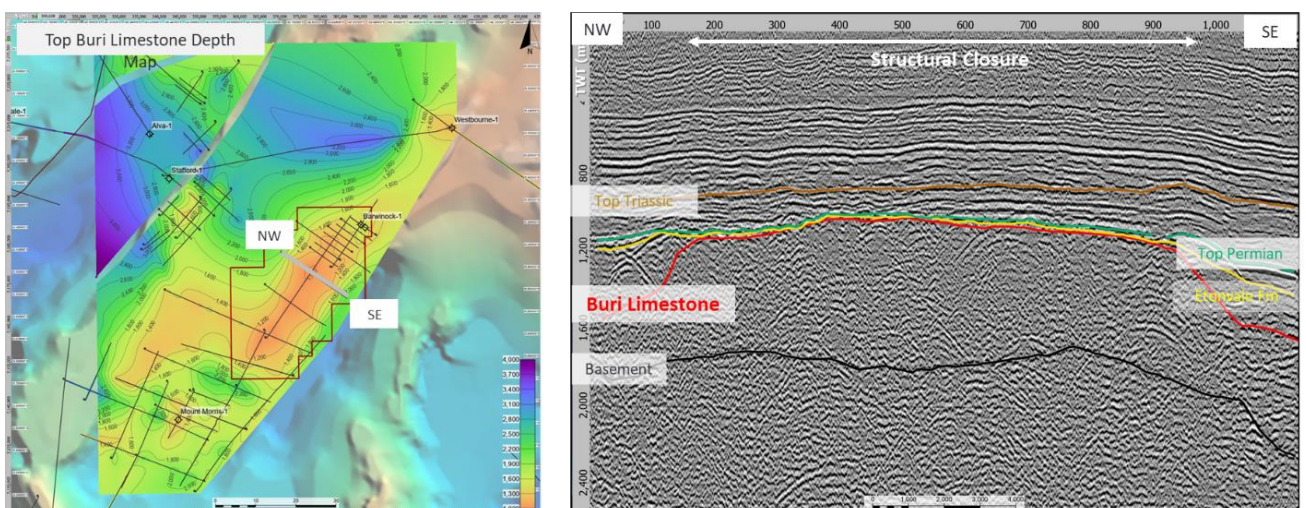


Figure 2: The Coolibah prospect on ATP 1069

Key activities undertaken on the Permit during the quarter included:

- Following the identification and independent Prospective Resource assessment of the Coolibah prospect at the end of 2022, the Company has been preparing for the next phase of exploration, consisting of an infill 2D seismic acquisition and associated processing and interpretation.
- In February 2023, the Company awarded a contract to Terrex Pty Ltd to undertake the acquisition of approximately 120 line kilometres of new 2D seismic.
- The Company has negotiated and is in the process of executing land access agreements with the landowners of eight discrete properties over which the seismic survey is intended to be undertaken.
- The Company has undertaken all necessary pre-survey assessments, including avoidance of native title claim areas, desktop environmental review and cultural heritage engagement. The Company also submitted a Data Acquisition Authority and associated Environmental Authority to facilitate the acquisition of seismic data outside the ATP boundary in order to tie-in the data with the previously drilled Mount Morris well to the South-West of the Permit.
- The Company initiated a tendering process for the processing of the acquired seismic data and will select the successful party in the coming weeks. The focus is to minimise time between data acquisition and interpretation.
- 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 with a drilling decision to be made in H2 2023.

TG PROJECT (NORTHERN TERRITORY)

The Company holds an approximately 53% beneficial interest in 30 exploration permit ("EP") 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, Tamboran Resources 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. In addition to achieving grant of the existing priority permits, the Company will also commence native title proceedings for EP 257 in the McArthur Basin and EP 279 and EP 280 in the Amadeus Basin.

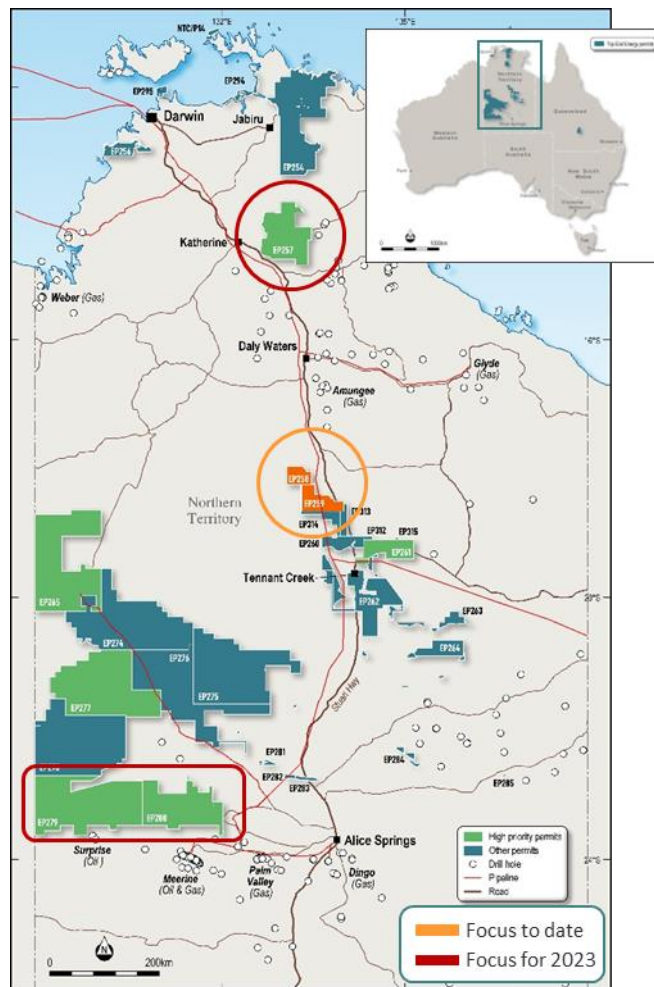


Figure 3: TEE's portfolio in the NT and prioritised permit applications

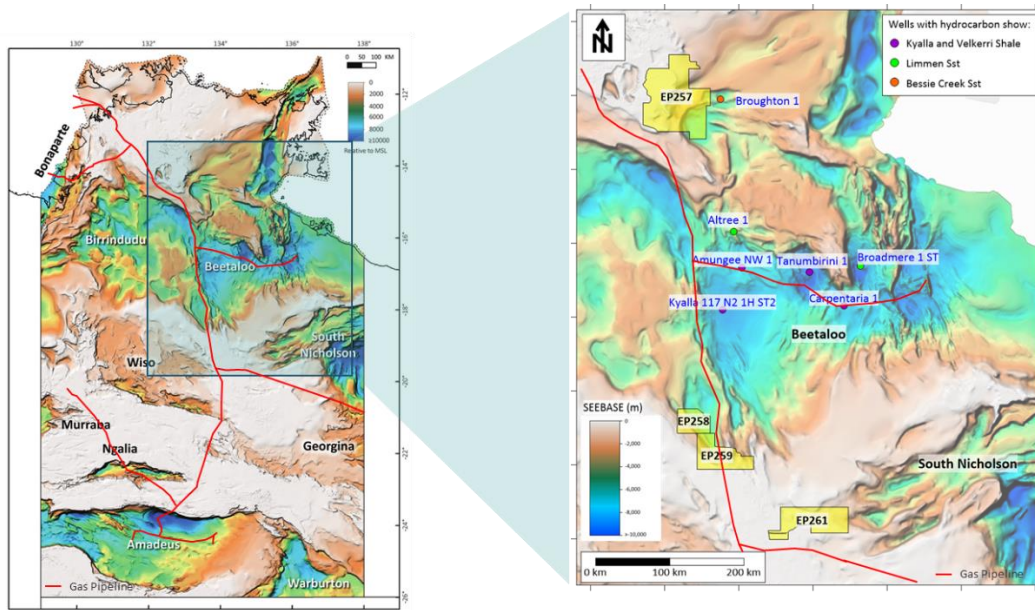


Figure 4: TEE's key permits in the Greater McArthur Basin

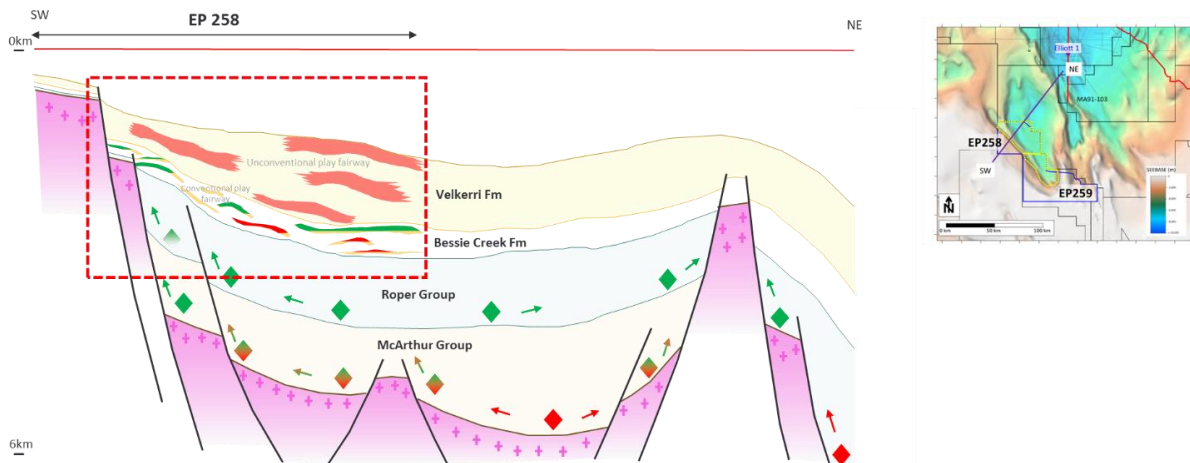


Figure 5: Regional schematic highlighting the potential of the untested southern margin of the Greater McArthur Basin and EP 258

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

- A third on country meeting (“OCM”) with the native title holders of Exploration Permit (EP) 258 was held in Elliott. The purpose of this OCM 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 NLC on the in-principle terms of the Exploration

Agreement subject to instruction from native title holders, and amended to reflect recent legislative amendments to the NT Petroleum Act.

- The Company was notified by the NLC that the NLC has received instructions from the native title holders for the Top End (Default PBC/CLA) Aboriginal Corporation ("Top End PBC") to enter into the Exploration Agreement. The Top End PBC is the native title body corporate acting as the agent for the native title holders.
- This instruction is the critical milestone for achieving grant of the Permit, which the Company has been working towards since acquiring its NT acreage.
- The Company has been working with the NT Government ("NTG") and the NLC to finalise the form of the Section 31 Deed, which is a statutory document that the NTG relies on for the consent of the native title party to the grant of the permit under the Native Title Act.
- On 1 March, the Company announced the engagement of Xcalibur Aviation to undertake the acquisition of approximately 2,500 line kilometres of Falcon airborne gravity gradiometry ("AGG") data over the entirety of EP 258, subject to the formal grant of the permit. Subject to receiving grant of the permit, it is intended that the AGG survey be undertaken in Q2 / Q3 2023.
- The objective of the AGG survey is to better understand the location and orientation of structural lineaments and basin architecture including basement highs, deep-seated faults and density contrasts between reservoirs and seals across the Permit. Interpretation of the AGG dataset in conjunction with regional magnetic surveys and play fairway mapping will help to optimise the location, orientation and specifications of a planned new shoot 2D seismic survey across the Permit.
- The Company 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, to be undertaken following the interpretation of the AGG data and refinement of the seismic survey scope.

AREA L22-6 (WESTERN AUSTRALIA)

During the quarter, the Company was successful in its application for Area L22-6 as part of the Western Australian ("WA") Government Petroleum Acreage Release 2P/2022. Area L22-6 is an area of approximately 6,300 km² over the WA extension of the Amadeus Basin. The grant of the permit is subject to the successful negotiation and execution of relevant agreements with the determined native title holders. Notice has been provided under section 29 of the Commonwealth Native Title Act 1993 that the application attracts the expedited procedure. The grant of the application will be subject to the Company formally agreeing with the Native Title Party to identify and protect Aboriginal sites within the boundaries of the exploration permit. This process is

expected to take six to twelve months to complete. Upon grant, the Company will hold a 100% interest in the area.

The Company will be able to leverage its existing knowledge of and foothold in the Amadeus Basin to deliver an optimised work program across the key Amadeus permits. The Amadeus is a proven yet underexplored hydrocarbon generating basin containing oil and gas fields that have been producing since the 1980s. The stratigraphy and facies of the WA Amadeus Basin is analogous to the eastern succession and proven Neoproterozoic petroleum systems and plays are expected to be present.

The presence of Helium and Hydrogen in historical wells Magee-1 and Mount Kitty-1 in the Northern Territory Amadeus Basin also represents the opportunity to explore for these gases in natural form in the WA Amadeus Basin⁴.

The Company has initiated the native title engagement process and will work towards agreeing a Heritage Protection Agreement ("HPA") with the traditional owner groups and their representatives.

CLEAN ENERGY

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

Towards the end of 2022, the Company commissioned Cryptid Energy Consultants ("Cryptid") to conduct an initial Phase 1 screening study to assess natural Hydrogen prospectivity potential across TEE's prioritised NT acreage. The Company issued an update after quarter-end that the completed study suggests the area of interest ("AOI") has the potential to be highly prospective for natural Hydrogen. Evidence of key natural Hydrogen systems elements have been identified across the AOI and further studies are being considered along with on-ground surveys to further mature this prospectivity. Key systems elements interpreted to be present for natural Hydrogen are also encouraging for the exploration of Helium.

⁴ The exploration and production of naturally occurring Hydrogen in WA will be subject to the Draft Petroleum Legislation Amendment Bill (No.2 2022) being passed in the WA Parliament.

Natural Hydrogen Systems Elements

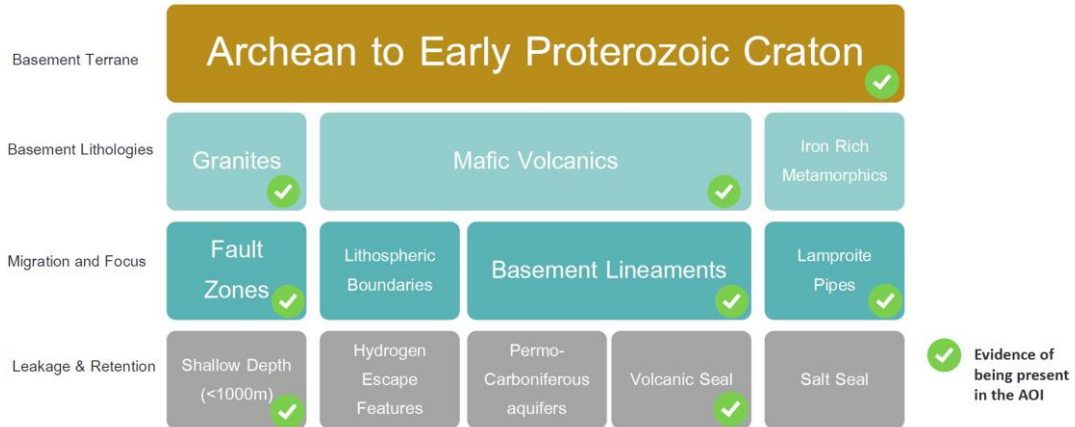


Figure 6: Natural Hydrogen systems elements interpreted to be present in the AOI⁵

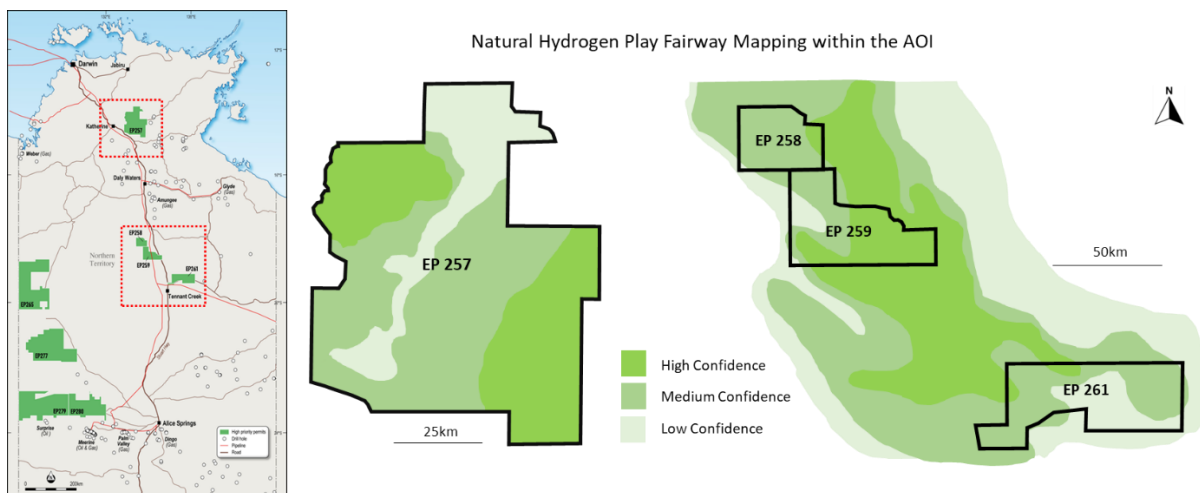


Figure 7: Natural hydrogen exploration play elements mapping over the AOI

PLANNED ACTIVITIES FOR Q2 2023

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

- Undertake the infill 2D seismic acquisition of approximately 120 line kilometres over the Coolibah prospect on ATP 1069, for which the Company has almost finalised preparations.

⁵ It should be noted that the absence of interpreted presence of a system element(s) in the Study does not necessarily evidence absence of actual presence. Similarly, the existence of significant natural Hydrogen systems does not require the presence of all elements shown in Figure 6.

- Process the acquired 2D seismic data and commence subsurface interpretation with the intention of identifying potential drilling prospects ahead of a drilling decision in H2 2023.
- Commence preparations for a farm-down of ATP 1069 in anticipation of a positive drilling decision.
- Achieve the formal grant of EP 258 in the NT.
- Undertake the planned acquisition of approximately 2,500 line kilometres of Falcon AGG data to better understand subsurface features and refine the scope of an intended 2D seismic survey of up to 150 line kilometres.
- Negotiate land access agreements with the pastoral lease holder of EP 258 ahead of the planned seismic survey and continue to complete other approvals required for on ground activities.
- Leverage findings of the Phase 1 natural Hydrogen study and incorporate activities tailored to the exploration for natural Hydrogen and Helium into the Company's work programs.
- Continue engagement with the respective land councils to progress the Company's other prioritised permit applications in the NT, specifically EP 259 and EP 257 in the McArthur Basin and EP 279 and EP 280 in the Amadeus Basin.
- Continue engagement with the traditional owner groups of L22-6 in Western Australia and the negotiation of an HPA.
- Continue pursuing corporate development opportunities to complement the Company's existing assets and strategic objectives.

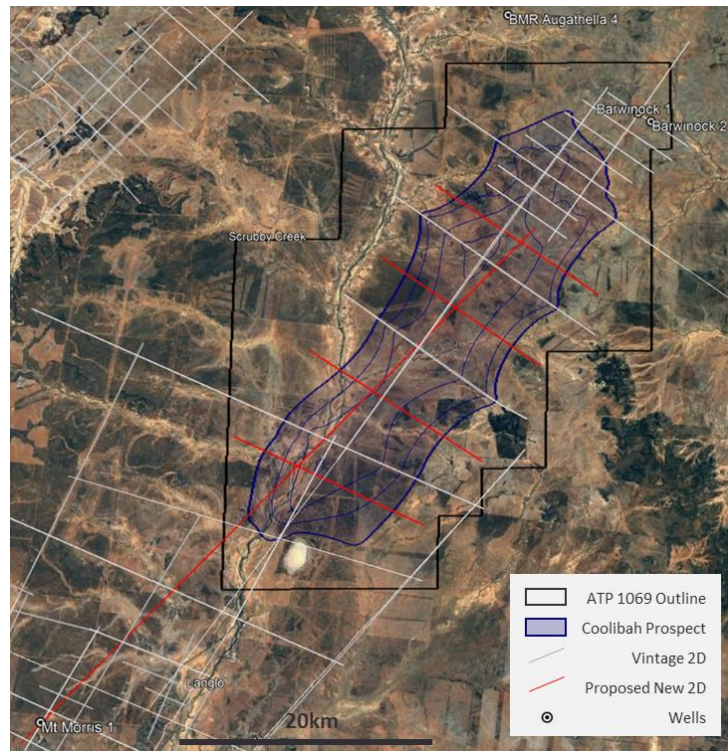


Figure 8: Planned 2D seismic scope to be undertaken on ATP 1069 in Q2 2023⁶

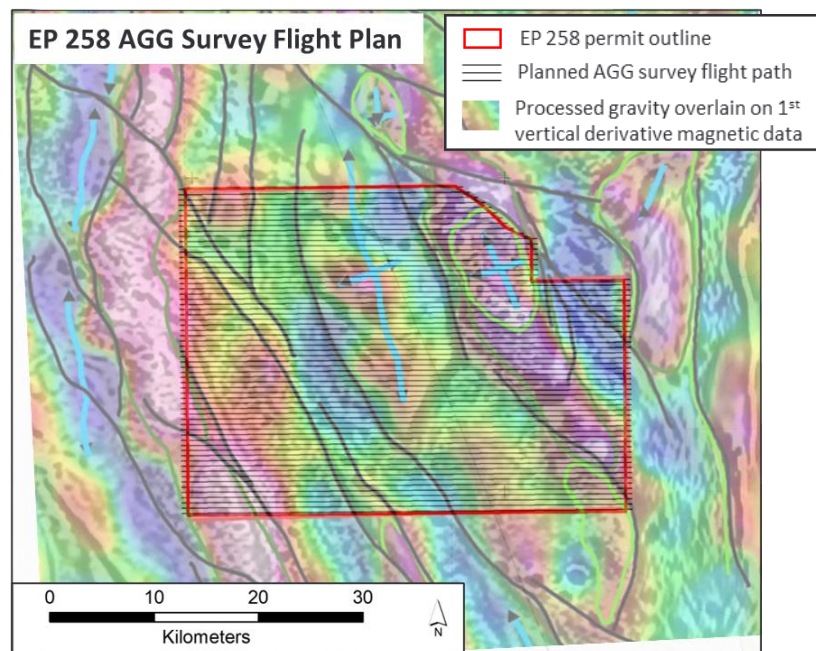


Figure 9: AGG Flight Survey Plan for EP 258 overlain with preliminary interpretation from existing regional gravity and magnetic datasets

⁶ The final 2D seismic lines will be slightly re-orientated to avoid areas pertaining to ecological sensitivity, cultural heritage and areas potentially subject to native title.

CORPORATE

- During the quarter, Shane Hartwig stepped down as Company Secretary, with Michelle Kennedy and Kelly Moore appointed as Joint Company Secretaries from 1 February 2023.
- 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 \$128k being circa \$122k for directors' fees and salaries and circa \$6k for rent of the corporate office.
- The Company remains well-funded with cash of circa \$4m at 31 March 2023.
- In accordance with Listing Rule 5.4.4, as the 31 March 2023 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 31 March 2023 against the estimated expenditure in the 'use of funds' statements:

Use of Funds (A\$) ⁷	Per IPO Prospectus (2-year period)	Investment Since Listing
Exploration Budget - ATP 1069 ⁸	2,808,000	141,577
Exploration Budget - TG Project ⁹	1,000,000	533,364
Project generation and feasibility – Green Energy and / or Carbon Abatement Projects ¹⁰	450,000	22,245
Corporate and administration costs ¹¹	1,463,250	1,277,814
Expenses of the Offer ¹²	778,206	567,826
Unallocated Working capital	465,544	-
Total funds	6,965,000	2,542,826

⁷ The Company remains on track in terms of meeting its business objectives in accordance with the proposed use of funds.

⁸ The funds spent by the Company relate to seismic reprocessing and interpretation activities and the planning and preparation of the future work program, with a seismic acquisition of up to 120 km to be undertaken in H1 2023. 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.

⁹ The funds spent by the Company relate to progressing application grant for prioritised permits, including attending on-country meetings with the native title holders of EP 258, preparation for the H1 2023 work program (including environmental management plan preparation, approvals and deposit on the planned gravity gradiometry survey) and corporate overhead allocation.

¹⁰ Preliminary expenditure on exploring opportunities for green energy and / or carbon abatement projects have been included in "Corporate and administration costs".

¹¹ Includes legal, consulting, accounting, audit and directors' fees, new business costs 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.

¹² 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.

2023 MARCH QUARTER – ASX ANNOUNCEMENTS

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

Successful Award of WA Amadeus Basin Acreage	24 January 2023
Appointment/Resignation of Company Secretary	1 February 2023
Appointment of Contractor for ATP 1069 2D Seismic Acquisition	20 February 2023
Appointment of Contractor for Gravity Gradiometry on NT EP 258	1 March 2023
Native Title Holder Approval for EP 258 Exploration Agreement	3 April 2023
High Natural Hydrogen/Helium Prospectivity Potential in NT	21 April 2023

- 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 across Australia, 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 170,000 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.

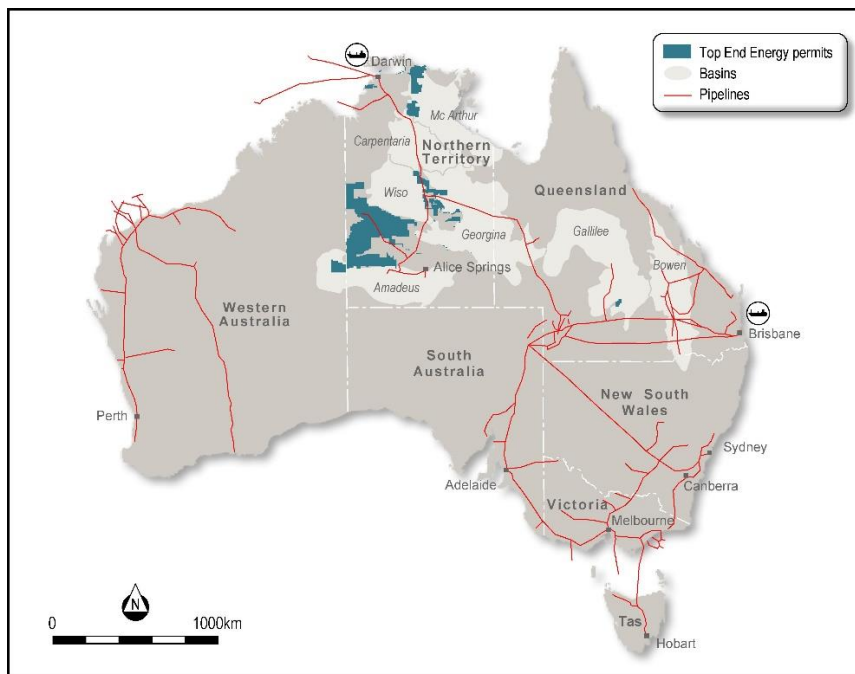


Figure 6: TEE's asset portfolio

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 ¹³	Location	Interest %	Holder
ATP 1069	Queensland	100.00	Tomorrow Energy Corporation Pty Ltd
EP(A) 254	Northern Territory	53.25	NT Gas Aust Pty Ltd
EP(A) 256	Northern Territory	53.25	NT Gas Aust Pty Ltd
EP(A) 257	Northern Territory	53.25	NT Gas Aust Pty Ltd
EP(A) 258	Northern Territory	53.25	Territory Gas Aust Pty Ltd
EP(A) 259	Northern Territory	53.25	Territory Gas Aust Pty Ltd
EP(A) 260	Northern Territory	53.25	Territory Gas Aust Pty Ltd
EP(A) 261	Northern Territory	53.25	Territory Gas Aust Pty Ltd
EP(A) 262	Northern Territory	53.25	Territory Gas Aust Pty Ltd
EP(A) 263	Northern Territory	53.25	Territory Gas Aust Pty Ltd
EP(A) 264	Northern Territory	53.25	Territory Gas Aust Pty Ltd
EP(A) 265	Northern Territory	53.25	NT Gas Aust Pty Ltd
EP(A) 274	Northern Territory	53.25	NT Gas Aust Pty Ltd
EP(A) 275	Northern Territory	53.25	NT Gas Aust Pty Ltd
EP(A) 276	Northern Territory	53.25	NT Gas Aust Pty Ltd
EP(A) 277	Northern Territory	53.25	NT Gas Aust Pty Ltd
EP(A) 278	Northern Territory	53.25	NT Gas Aust Pty Ltd
EP(A) 279	Northern Territory	53.25	NT Gas Aust Pty Ltd
EP(A) 280	Northern Territory	53.25	NT Gas Aust Pty Ltd
EP(A) 281	Northern Territory	53.25	NT Gas Aust Pty Ltd

¹³ The Company's petroleum tenements in the Northern Territory and Western Australia 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	53.25	NT Gas Aust Pty Ltd
EP(A) 283	Northern Territory	53.25	NT Gas Aust Pty Ltd
EP(A) 284	Northern Territory	53.25	NT Gas Aust Pty Ltd
EP(A) 285	Northern Territory	53.25	NT Gas Aust Pty Ltd
EP(A) 294	Northern Territory	53.25	NT Gas Aust Pty Ltd
EP(A) 295	Northern Territory	53.25	NT Gas Aust Pty Ltd
EP(A) 312	Northern Territory	53.25	Territory Gas Aust Pty Ltd
EP(A) 313	Northern Territory	53.25	Territory Gas Aust Pty Ltd
EP(A) 314	Northern Territory	53.25	Territory Gas Aust Pty Ltd
EP(A) 315	Northern Territory	53.25	Territory Gas Aust Pty Ltd
NTC/P(A) 14	Northern Territory	53.25	NT Gas Aust Pty Ltd
L22-6	Western Australia	100.00	Tomorrow Energy Corporation Pty Ltd

During the quarter, the Company was notified by the Government of Western Australia Department of Mines, Industry Regulation and Safety that its application for Area L22-6 as part of the Western Australian (WA) Government Petroleum Acreage Release 2P/2022 had been successful. The Company holds its interest in Area L22-6 through Tomorrow Energy Corporation Pty Ltd, a wholly owned subsidiary of Top End Energy Limited.

Appendix 2: Summary of cash expenditure per project

Project	Cash Expenditure A\$'000
Exploration Budget - ATP 1069	20
Exploration Budget - TG Project	126
Green Energy and / or Carbon Abatement Projects	11