



QUARTERLY ACTIVITIES REPORT FOR THE PERIOD ENDED 31 DECEMBER 2023

- **Successful consolidation of 100% ownership of the Gurvantes XXXV Project with the completed acquisition of 33% of the Project from Talon Energy**
- **Pilot Production Wells continue to flow gas with December 2023 production 50% higher than November 2023**
- **Winterisation of Pilot Well Project successfully completed during December 2023 with 95% production uptime achieved during quarter**
- **Additional testing activities commenced on pilot wells to acquire data on reservoir properties to assist in the design of future work programs**
- **2023 Exploration Program completed with additional prospectivity confirmed approximately 100km along strike at the Terra Area**

The quarter ending 31 December 2023 (“Quarter” or “Reporting Period”) has been another active and successful period for TMK Energy Limited (ASX:TMK) (“TMK” or the “Company”), particularly with the successful completion of the 100% ownership consolidation of the Gurvantes XXXV Project. Encouragingly, gas flows from the Pilot Wells continued to increase month on month during the quarter with water rates gradually decreasing in line with expectations.

Commenting on the Quarter, Mr Brendan Stats, TMK Energy’s Chief Executive Officer said:

“The December quarter was another very active period for the Company with the consolidation of the ownership of the Gurvantes XXXV Project at 100% within TMK completed, as well as a significant improvement in operational performance with the three Pilot Production Wells running seamlessly over the last few months.

During the December quarter, TMK completed much of the onsite construction and winterisation work required to continually operate the production wells on a permanent basis. With this work completed and the Pilot Well Production facilities fully operational, the Company has commenced the next phase of the extended well testing which will assist in the field development planning.

The Company is well advanced with its plans for 2024 with an active program which will likely include additional wells at Nariin Sukhait to accelerate gas production, but also an exploration program designed to further expand on the already significant contingent resources that have been identified within the Gurvantes XXXV Project area.

We remain well funded with over \$3 million in cash and liquid assets and have commenced an active process to introduce a strategic partner into the project now that the consolidation of 100% of the Project within TMK is completed, providing us with flexibility, control and multiple funding options going forward.”



Lucky Fox Pilot Program - Production Wells Extended Production Testing

The extended production test (EPT) involves producing water and gas from the three Lucky Fox production wells. This process commenced in July 2023 and continues to perform in accordance with the Company's expectations providing valuable information as more data is collected and water and gas production rates are measured.

Gas production has been steadily increasing and water production decreasing during the quarter, with the EPT displaying the typical characteristics that most successful coal seam gas projects display during the initial testing period.

Following some pump blockages in LF-03 resulting in some downtime in the early part of the current quarter, the EPT has enjoyed approximately 95% production uptime during the quarter, with close to 100% production uptime during November and December.

Figure 1 – Lucky Fox-1 Winterisation Completed



With the pumps now operating effectively and the winterisation of the wells and facilities complete, the Company has initiated the next phase of the testing program which includes temporary shutdowns of certain wells to measure pressure buildup and gather more data on reservoir properties.

Although this work will have a temporary negative impact on production of water and gas, this additional testing is necessary to evaluate the performance of the pilot well program to date and help determine the optimal drilling program in 2024 and how many more wells (if any) should be drilled at the Lucky Fox complex. Drilling more wells should accelerate the dewatering of the reservoir and potentially deliver a commercial flow rate sooner – noting however from other successful CSG projects, that a longer dewatering phase usually results in a longer gas production phase and hence enhanced commerciality of the overall project.

During December 2023, the three Lucky Fox pilot wells gas production was approximately 50% higher than November 2023 and was approximately 3.5 times higher than October 2023. The increasing, but still relatively low, gas rates, are not yet indicative of the final anticipated flow rates.

Table 1 – Monthly Pilot Well Program Production Data to 31 December 2023

Month (2023)	Total Volume Produced (mscf)	Max Daily Gas Volume (mscf)	Average Water Volume (bwpd)	Comment
July	2.4	0.6	418	Pilot wells commenced 15 July 2023
August	72.7	4.1	530	Initial “flush” production period
September	30.7	2.3	389	14 days downtime for LF-03
October	60.1	3.6	417	12 days downtime for LF-03
November	130.5	13.0	496	98% production uptime for all wells
December	200.4	12.9	488	99% production uptime for all wells

Note: The production rates in Table 1 are likely to underestimate gas volumes at low rates and are therefore indicative only. The accuracy of the measurements improves as gas rates increase.

Water production from each of the three Lucky Fox wells continues to gradually decrease indicating that the reservoir pressure is gradually decreasing. A gradual reduction (rather than a rapid reduction) in water rates is a positive sign and demonstrates sufficient permeability and connectivity of the reservoir. Water rates are currently tracking at approximately 460 barrels of water per day (bwpd) with the water being beneficially re-used locally at the nearby mining operations.

Despite the extreme cold and sometimes challenging weather conditions experienced throughout the Mongolian winter, the TMK team successfully completed the winterisation of the production wells and associated facilities during December 2023. This work involves burying water pipes, heat tracing and insulation of critical elements of the production process.

Exploration Activities

As announced on 28 August 2023, TMK and Terra Energy LLC (Terra) commenced a joint exploration program at relatively low cost to TMK which included a minimum of four fully cored exploration wells and ~40 kilometres of 2D seismic acquisition in the Terra coal mining license areas within the Gurvantes XXXV Project area. The drilling program was extended (see ASX announcement 9 October 2023) to include a minimum of eight cored exploration wells.

The drilling of 8 cored wells at Terra was completed in November, with results from testing of wells becoming progressively available. A summary of the exploration results from the cored exploration wells completed at the Terra area is shown in **Table 2**, and the approximate location of the wells is shown in **Figure 2**.

In summary, 4 drill holes were completed in the northern portion of the Terra area and results indicated low prospectivity for CSG. One of the four drillholes was abandoned due to drilling conditions before reaching the target depth and the other 3 drillholes in the northern area intersected coals with low gas contents.

In the central area, 4 drillholes were completed and results indicated high prospectivity for CSG. Two of the exploration wells, namely BNH23_002C and BNH23_005C intersected very thick coals of 45m and 56m of net coal thickness respectively. Gas desorption testing on coal samples collected from these two exploration wells indicated there is a range of gas contents including high gas contents (maximum gas content >10m³/t on an as received basis). It should be noted that the top of the coal seams were intersected at depths of <180metres depth in both wells, which is relatively very shallow for CSG as gas contents in coal seams typically increase with depth. The two other drillholes completed in Terra Central intersected coal with low gas contents, however both wells were completed to a relatively shallow depths and provide useful information for guiding future exploration. Final results from the gas desorption and adsorption testing are expected to be available in the near future.

Gas composition analysis was completed from samples from BNH23_002 and BNH23_005C and results consistently indicate very high Methane concentrations of greater than >96%, with corresponding low Carbon Dioxide values.

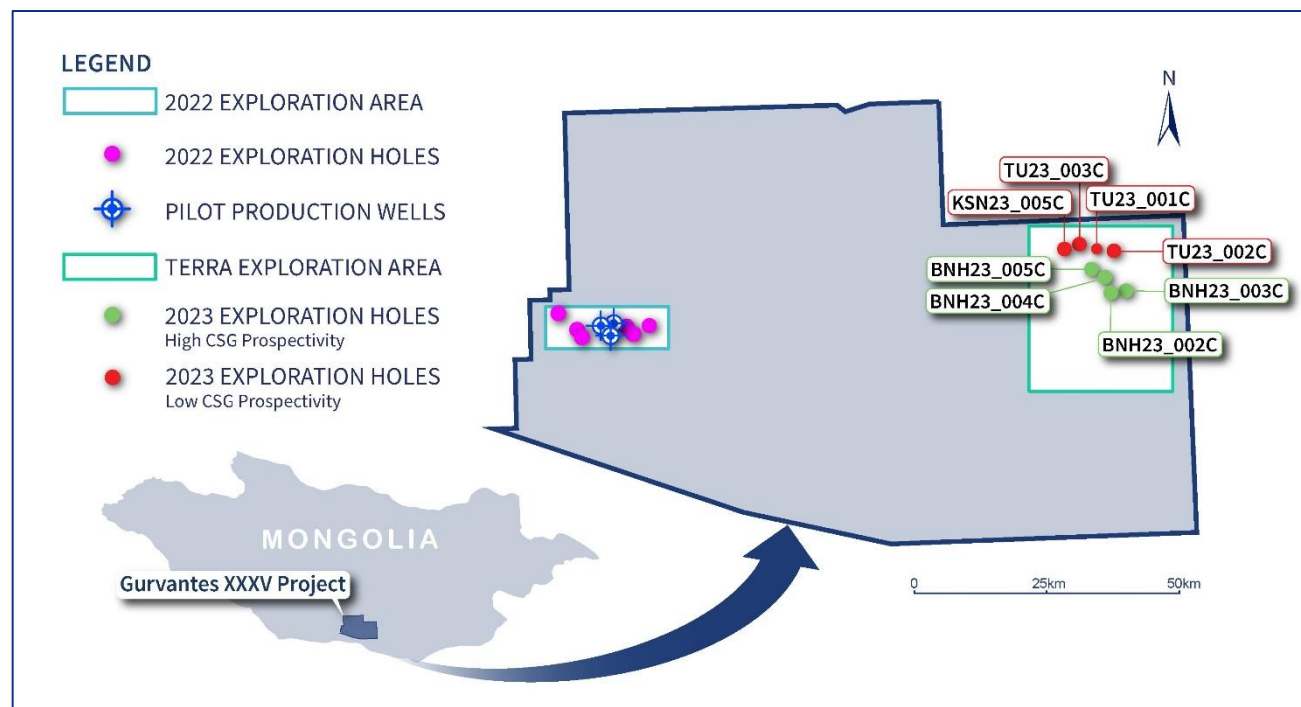
Drill Stem Testing (DST) was successfully completed over the coal intervals in three of the exploration wells in the ‘Terra Central’ area and results indicated coal permeability values in the order of 0.20mD – 1mD.

The results from the exploration wells drilled at Terra Central are considered very encouraging as they have identified very thick gassy coal seams in an area where there has been no historical CSG exploration. The results from the 2023 exploration program at Terra will be used to guide further evaluation of the Central Terra area as well as further areas to the south and west.

Table 2 – Summary of 2023 Exploration Results

		TU23_001C	TU23_002C	TU_0023C	KSN23_005C	BNH23_002C	BNH23_005C	BNH23_004C	BNH23_003C
Drill Hole Details	Location	Terra North	Terra North	Terra North	Terra North	Terra Central	Terra Central	Terra Central	Terra Central
	Date Completed	Abandoned	Sep-23	Sep-23	Oct-23	Sep-23	Oct-23	Nov-23	Nov-23
	Total Depth (metres)	219.7	406	408	308	330	250	255	230
Coal	Net Coal Thickness (metres)	n/a	9	10	21	45	56	9	5
	Top Coal Intersection (metres)	n/a	170	90	143	177	180	237	193
Gas Characteristics	Gas Content	n/a	Low	Low	Low	Low-High*	Low-High*	Low*	Low*
	Methane (CH ₄) % (average)	n/a	n/a	n/a	n/a	>96%	>96%	n/a	n/a
Permeability (DST)	Flow Capacity mD.m	n/a	n/a	n/a	n/a	14	48	1.7	n/a
	Coal Permeability mD	n/a	n/a	n/a	n/a	0.49	0.86	0.20	n/a

Figure 2 – Project Location Map



Corporate

Consolidation of 100% of Gurvantes XXXV Project within TMK

On 11 October 2023, TMK and Talon Energy Limited (Talon) signed a binding agreement to consolidate 100% of the ownership of the Gurvantes XXXV CSG Project within TMK. Following this, Talon and TMK Shareholders approved the acquisition, by General Meetings that were held in late November 2023.

The settlement for the transaction occurred as scheduled on 22 December 2023 in which TMK processed the in-specie distribution of TMK shares and TMK Listed Options to Talon shareholders following the acquisition from Talon of its rights to 33% interest in the Gurvantes XXXV Project.

Of the total Consideration Securities issued to Talon, being 1,092,000,000 fully paid TMK Shares plus 546,000,000 listed options (ASX:TMKOB), 1,001,0017,238 TMK Shares, and 500,508,618 listed options were distributed to Talon shareholders.

Talon Energy (now Strike Energy) Option Conversion

Prior to the implementation of the Scheme of Arrangement (Scheme) between Talon and Strike Energy Limited (ASX:STX), the Company converted its full 5 million options in Talon Energy at an exercise price of \$0.20 per Talon share. On implementation of the Scheme, the Company was issued 2,414,000 STX shares in consideration of the 5 million Talon shares it held. The Company currently still holds these shares which have a value of approximately \$1.06 million.

Mongolia National Audit Office

Mongolia's National Audit Office periodically audits government bodies including the Mineral Resources and Petroleum Authority of Mongolia (MRPAM), the regulator of the various Production Sharing Agreements (PSA's) in Mongolia. The Company has been made aware that the Mongolian National Audit Office has recently claimed that the various owners of PSA's have not met their expenditure commitments for the 2021 calendar year. The amounts of the claims vary and are all relatively modest.

TMK notes that the parties to its PSA are Telmen Resource LLC (a wholly owned subsidiary of TMK) and MRPAM and that at present, MRPAM has to date, made no formal claim against Telmen. TMK and Telmen believe these claims by the National Audit Office are without substance and the Company is proactively pursuing various avenues in Mongolia to resolve the matter.

ASX Listing Rule 5.3.3 Tenement Summary

At 31 December 2023, the Company held the following interests in tenements and/or licenses:

Project	Percentage Interest	Number of Tenements
Gurvantes XXXV	100%	1

In addition, the Company holds a 20% interest in the Napoleon Deep Prospect via a 20% shareholding in Skye Napoleon Pty Ltd. There was no activity on this project during the Reporting Period.

Related Party Payments

During the quarter ending 31 December 2023, the Company made payments of \$48,864 to related parties and their associates. These payments relate to the Directors' fees.

Authorised for release to ASX by the Board of Directors.

For further information please contact TMK Energy at:

WEB: www.tmkenergy.com.au

EMAIL: info@tmkenergy.com.au

ABOUT TMK ENERGY LIMITED

TMK Energy Limited is listed on the Australian Stock Exchange. TMK is led by an Australian and Mongolian team bringing together the expertise and experience to develop the Gurvantes XXXV CSG Project.



Appendix 5B

Mining exploration entity or oil and gas exploration entity quarterly cash flow report

Name of entity

TMK Energy Limited

ABN

66 127 735 442

Quarter ended ("current quarter")

31 December 2023

Consolidated statement of cash flows	Current quarter \$A'000	Year to date (12 months) \$A'000
1. Cash flows from operating activities		
1.1 Receipts from customers	-	-
1.2 Payments for		
(a) exploration & evaluation	-	-
(b) development	-	-
(c) production	-	-
(d) staff costs	(361)	(1,003)
(e) administration and corporate costs	(405)	(1,456)
1.3 Dividends received (see note 3)	-	-
1.4 Interest received	59	124
1.5 Interest and other costs of finance paid	-	-
1.6 Income taxes paid	-	-
1.7 Government grants and tax incentives	-	-
1.8 Other (provide details if material)	-	-
1.9 Net cash from / (used in) operating activities	(707)	(2,335)

2. Cash flows from investing activities		
2.1 Payments to acquire or for:		
(a) entities	-	-
(b) tenements	-	-
(c) property, plant and equipment	-	-
(d) exploration & evaluation	(1,890)	(8,453)
(e) investments	(1,000)	(1,000)
(f) other non-current assets	-	-

Mining exploration entity or oil and gas exploration entity quarterly cash flow report

Consolidated statement of cash flows		Current quarter \$A'000	Year to date (12 months) \$A'000
2.2	Proceeds from the disposal of:		
	(a) entities	-	-
	(b) tenements	-	-
	(c) property, plant and equipment	-	-
	(d) investments	-	-
	(e) other non-current assets	-	-
2.3	Cash flows from loans to other entities	-	-
2.4	Dividends received (see note 3)	-	-
2.5	Other (Talon Energy funding pursuant to Farmout Agreement)	600	5,959
2.6	Net cash from / (used in) investing activities	(2,290)	(3,494)
3.	Cash flows from financing activities		
3.1	Proceeds from issues of equity securities (excluding convertible debt securities)	-	5,699
3.2	Proceeds from issue of convertible debt securities	-	-
3.3	Proceeds from exercise of options	-	-
3.4	Transaction costs related to issues of equity securities or convertible debt securities	-	(337)
3.5	Proceeds from borrowings	-	-
3.6	Repayment of borrowings	-	-
3.7	Transaction costs related to loans and borrowings	-	-
3.8	Dividends paid	-	-
3.9	Other (provide details if material)	-	-
3.10	Net cash from / (used in) financing activities	-	5,362
4.	Net increase / (decrease) in cash and cash equivalents for the period		
4.1	Cash and cash equivalents at beginning of period	5,212	2,681
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(707)	(2,335)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	(2,290)	(3,494)
4.4	Net cash from / (used in) financing activities (item 3.10 above)	-	5,362

Mining exploration entity or oil and gas exploration entity quarterly cash flow report

Consolidated statement of cash flows		Current quarter \$A'000	Year to date (12 months) \$A'000
4.5	Effect of movement in exchange rates on cash held	-	-
4.6	Cash and cash equivalents at end of period	2,215	2,215

5.	Reconciliation of cash and cash equivalents at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts	Current quarter \$A'000	Previous quarter \$A'000
5.1	Bank balances	2,215	3,712
5.2	Call deposits	-	1,500
5.3	Bank overdrafts	-	-
5.4	Other (provide details)	-	-
5.5	Cash and cash equivalents at end of quarter (should equal item 4.6 above)	2,215	5,212

6.	Payments to related parties of the entity and their associates	Current quarter \$A'000
6.1	Aggregate amount of payments to related parties and their associates included in item 1	49
6.2	Aggregate amount of payments to related parties and their associates included in item 2	-
<i>Note: if any amounts are shown in items 6.1 or 6.2, your quarterly activity report must include a description of, and an explanation for, such payments.</i>		

Mining exploration entity or oil and gas exploration entity quarterly cash flow report

7. Financing facilities	Total facility amount at quarter end \$A'000	Amount drawn at quarter end \$A'000
<i>Note: the term "facility" includes all forms of financing arrangements available to the entity. Add notes as necessary for an understanding of the sources of finance available to the entity.</i>		
7.1 Loan facilities	-	-
7.2 Credit standby arrangements	-	-
7.3 Other (please specify)	-	-
7.4 Total financing facilities	-	-
7.5 Unused financing facilities available at quarter end		-
7.6 Include in the box below a description of each facility above, including the lender, interest rate, maturity date and whether it is secured or unsecured. If any additional financing facilities have been entered into or are proposed to be entered into after quarter end, include a note providing details of those facilities as well.		

8. Estimated cash available for future operating activities	\$A'000
8.1 Net cash from / (used in) operating activities (item 1.9)	707
8.2 Payments for exploration & evaluation classified as investing activities (item 2.1(d))	1,890
8.3 Total relevant outgoings (item 8.1 + item 8.2)	2,597
8.4 Cash and cash equivalents at quarter end (item 4.6)	5,212
8.5 Unused finance facilities available at quarter end (item 7.5)	-
8.6 Total available funding (item 8.4 + item 8.5)	2,215
8.7 Estimated quarters of funding available (item 8.6 divided by item 8.3)	0.85
<i>Note: if the entity has reported positive relevant outgoings (ie a net cash inflow) in item 8.3, answer item 8.7 as "N/A". Otherwise, a figure for the estimated quarters of funding available must be included in item 8.7.</i>	
8.8 If item 8.7 is less than 2 quarters, please provide answers to the following questions:	
8.8.1 Does the entity expect that it will continue to have the current level of net operating cash flows for the time being and, if not, why not?	
Answer: No. The Company has now completed the majority of capital expenditure on the Pilot Well Program and does not anticipate spend to continue at these levels in the first half of 2024 unless additional wells are drilled, none of which are planned at this stage.	
8.8.2 Has the entity taken any steps, or does it propose to take any steps, to raise further cash to fund its operations and, if so, what are those steps and how likely does it believe that they will be successful?	
Answer: Yes. The Company owns approximately 2.4 million Strike Energy shares which have a current market value of over \$1 million. It is the Company's intention to dispose of these shares in the coming months to further fund operations as required.	

Mining exploration entity or oil and gas exploration entity quarterly cash flow report

8.8.3 Does the entity expect to be able to continue its operations and to meet its business objectives and, if so, on what basis?

Answer: Yes. The Company has recently acquired Talon Energy's 33% interest in the Gurvantes XXXV Project therefore providing the Company with the opportunity to fund its ongoing work program via either farmout, partial sale or introduction of strategic partnerships.

Note: where item 8.7 is less than 2 quarters, all of questions 8.8.1, 8.8.2 and 8.8.3 above must be answered.

Compliance statement

- 1 This statement has been prepared in accordance with accounting standards and policies which comply with Listing Rule 19.11A.
- 2 This statement gives a true and fair view of the matters disclosed.

Date: 31 January 2024

Authorised by: Board of Directors

Notes

1. This quarterly cash flow report and the accompanying activity report provide a basis for informing the market about the entity's activities for the past quarter, how they have been financed and the effect this has had on its cash position. An entity that wishes to disclose additional information over and above the minimum required under the Listing Rules is encouraged to do so.
2. If this quarterly cash flow report has been prepared in accordance with Australian Accounting Standards, the definitions in, and provisions of, *AASB 6: Exploration for and Evaluation of Mineral Resources* and *AASB 107: Statement of Cash Flows* apply to this report. If this quarterly cash flow report has been prepared in accordance with other accounting standards agreed by ASX pursuant to Listing Rule 19.11A, the corresponding equivalent standards apply to this report.
3. Dividends received may be classified either as cash flows from operating activities or cash flows from investing activities, depending on the accounting policy of the entity.
4. If this report has been authorised for release to the market by your board of directors, you can insert here: "By the board". If it has been authorised for release to the market by a committee of your board of directors, you can insert here: "By the [name of board committee – eg Audit and Risk Committee]". If it has been authorised for release to the market by a disclosure committee, you can insert here: "By the Disclosure Committee".
5. If this report has been authorised for release to the market by your board of directors and you wish to hold yourself out as complying with recommendation 4.2 of the ASX Corporate Governance Council's *Corporate Governance Principles and Recommendations*, the board should have received a declaration from its CEO and CFO that, in their opinion, the financial records of the entity have been properly maintained, that this report complies with the appropriate accounting standards and gives a true and fair view of the cash flows of the entity, and that their opinion has been formed on the basis of a sound system of risk management and internal control which is operating effectively.