22 December 2025

Lance Uranium Project, Wyoming, USA

Key Operational Milestone at Mine Unit 4 Supports Next Stage of Production Ramp-Up at Lance

KEY POINTS

- Header House 14 within Mine Unit 4 (**MU-4**) at the Company's Lance Uranium Project in Wyoming, USA has entered the acidification stage – a critical step toward first production from MU-4 – following authorisation to inject by the Uranium Recovery Program within the Wyoming Department of Environmental Quality (**WDEQ**).
- Construction of the associated Header Houses 16 and 15 in MU-4 is on schedule, with acidification planned to commence in the next few months.
- MU-4 represents ~60% of the Company's uranium production forecast for CY2026 and 2027, highlighting its strategic importance in the Company's new production reset plan.
- Commissioning of key systems within the Lance Central Processing Plant (**CPP**) continues, supporting the ongoing ramp-up toward production targets.
- The Company remains on track to meet forecast uranium production guidance for CY2026 of 0.4 to 0.5Mlbs.

Peninsula Energy Limited and its wholly-owned subsidiary, Strata Energy Inc. (together "**Peninsula**" or the "**Company**") (ASX: **PEN**, OTCID: **PENMF**) is pleased to announce the commencement of acidification at Header House 14 within MU-4 at its Lance Uranium Project in Wyoming, USA following receipt of authorisation to inject from the WDEQ.

The acidification process is expected to continue for approximately three months, after which flows from this header house will be redirected to the Lance CPP for production.

The development of MU-4 follows the acidification of wells for header houses 11 and 12 in Mine Unit 3 (**MU-3)**, the first header houses developed specifically for low-pH operations as part of the production reset plan implemented in August this year, which is aimed at establishing sustainable production and operational excellence at Lance (**Reset Plan**).

Wellfield Optimisation

Following a review of the wellfield pattern designs earlier this year, Peninsula has also implemented revised wellfield maintenance plans and optimised design patterns designed to improve production rates from MU-4 onwards, with the MU-4 design amended from that used in MU-3.

Under the revised design, each header house will consist of ~30 production wells, with ~60 feet spacing between production and injection wells. This configuration is intended to reduce the time required to reach the targeted acidification pH level of ~2 standard units. Once the target pH level is achieved, uranium-rich fluids from the header house are directed to the CPP for production.

This revised design is expected to result in ~80% of recoverable uranium within each header house pattern being recovered within a 13-to-14-month period.

Based on pump tests conducted within MU-4 for the wellfield data package submission to the WDEQ, MU-4 flow rates are expected to be significantly better than those experienced to date in MU-3. Importantly, these pump test flow rates exceed the more conservative flow rate assumptions used in the Reset Plan announced on 22 August 2025.

MU-4 comprises six header houses and represents approximately 60% of the uranium production forecast in CY2026 and CY2027 outlined in the Reset Plan. Construction of Header House 16 is nearing completion, with acidification to commence in the coming weeks. Construction of Header House 15 is also well advanced, with acidification expected to commence in the March 2026 quarter following the completion of acidification of Header House 14.

CPP Commissioning
Significant progress has been made in commissioning activities within the CPP. Fine-tuning of multiple systems continues as the elution, precipitation, filtration and drying processes mature. A key focus is the implementation of a water purification system for process water, aimed at reducing sodium levels in the final dried yellowcake product.

Work is also progressing on the replacement of the corrosion-affected piping system in Phase 1 of the CPP, with materials received on site and installation crews have commenced work. Following assessment of available options, the Company has elected to replace the affected pipework with fibre-reinforced plastic material, which is expected to provide a permanent solution. This material has demonstrated strong performance at other facilities operating under acidic and corrosive conditions. Installation of the permanent pipework solution is targeted for completion in January 2026, ahead of production flows from Header House 14 being directed to the CPP.

Peninsula Energy's Managing Director and Chief Executive Officer, Mr George Bauk, commented:
"The commencement of acidification within Mine Unit 4 is a significant milestone to conclude the year. Mine Unit 4 incorporates the optimised wellfield design within a mining area that is demonstrating strong flow rates, which we expect to be representative of the broader Kendrick mining area.

"Mine Unit 4 continues to progress well, with three header houses expected to be in acidification over the coming months, after which the focus will shift to the remaining three header houses in this mine unit. I would like to take this opportunity to acknowledge the extraordinary efforts of our dedicated team on-site in Wyoming during the year as we work to secure Peninsula's future as a successful long-term US uranium producer."

– ENDS –

This release has been approved by Peninsula's Board of Directors.

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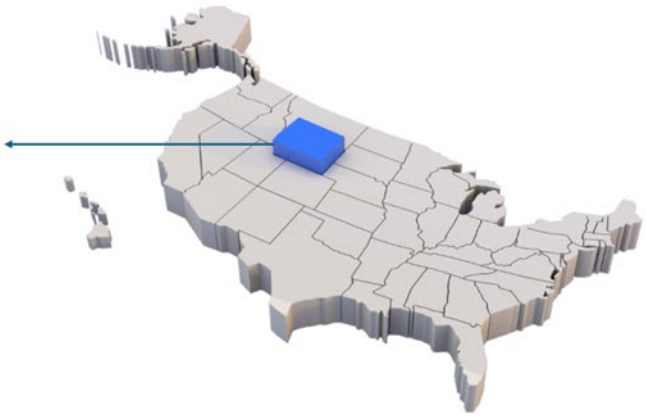
ABOUT PENINSULA ENERGY LIMITED

Peninsula Energy Limited (ASX: PEN) is an ASX-listed uranium company which is developing a long-term uranium production business centred on its 100%-owned Lance Uranium Operation located in Wyoming, USA. The Lance Project successfully re-commenced production of dried yellowcake in September 2025 and is continuing to ramp up production under a revised production and operational plan announced in August encompassing the progressive deployment of low-pH operations, revised wellfield design and optimised production sequencing.

Lance is one of the largest, independent uranium projects in the US and, once back in full production, will establish Peninsula as a fully independent end-to-end producer of yellowcake. Strategically positioned within a supportive US jurisdiction, Peninsula is well-placed to become a key domestic supplier of uranium and play an important role in a clean energy future.

Central Processing Plant (Phase I & II)



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