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80 Mile PLC / Ticker: 80M / Market: AIM / Sector: Mining

## High Concentrations of Helium Detected at Surface at Outokumpu

**80 Mile Plc** ("**80 Mile**" or the "**Company**") is pleased to announce a significant breakthrough in its ongoing exploration program in the Outokumpu Belt, Finland. Following the previously disclosed work program aimed at evaluating the potential for geological hydrogen and helium, the Company has successfully identified high concentrations of helium at surface in select historical drill holes.

### Significant Findings:

- Helium Concentrations: Recent tests on historical drill holes have revealed helium concentrations at the surface, with notable **stabilized values of up to 10.7% Helium** in the Perttilahti Area, located in the centre of the Companies tenement package on the belt. These findings exceed initial expectations and underscore the substantial potential of the Outokumpu Belt for industrial gas resources.
- Surface Sampling Success: The surface sampling program utilized a portable helium detector, allowing the Company to measure gas concentrations, at surface, directly from the historical drill holes. These high surface helium readings are a promising indicator of the deeper subsurface potential within the region.
- This marks the **first published occurrence of helium** detected **flowing to the surface** in Finland. Previously, helium was identified in solution within groundwater at depth, but this surface detection is a major advancement. The presence of helium at surface, as opposed to being dissolved in groundwater, is a significant result, highlighting the potential for accessible and commercially viable helium resources in the region.
- The results not only validate the historical data previously collected but also position the Company to fast-track further exploration efforts. The measurement of high helium concentrations at surface provide a robust foundation for the continued evaluation of the Outokumpu Belt's potential as a major source of industrial gases.
- Gas samples from a 2480-meter-deep drill hole, analysed by the GTK, has additionally revealed **up to 46% geological hydrogen**, highlighting the belt's potential for industrial gas reserves.
- Extensive Historical Data: >2000 historical drill holes provide robust foundation for fast-tracking gas assessment across the 40-kilometer licence holding

## Upcoming Exploration Program:

In light of these promising results, 80 Mile plans to intensify its exploration activities in the Outokumpu Belt. The Company will undertake further detailed sampling and analysis, focusing on areas with the highest helium concentrations. This will include additional surface sampling, re-entering select drill holes for deeper testing, and integrating the findings with historical seismic data to pinpoint the most prospective zones.

The Company has additionally begun planning a proof of concept study aimed at assessing the commercial recovery of helium and hydrogen from existing deep drill holes. This study will focus on evaluating the technical and economic feasibility of extracting these gases using modern recovery techniques. The success of this study could represent a significant step towards generating cash flow from the project, though the Company remains cautious in its approach and will proceed methodically to ensure all factors are thoroughly considered.

## Eric Sondergaard, Managing Director of 80 Mile Plc, commented:

"We are thrilled with the initial surface helium concentrations identified in the Outokumpu Belt. These results exceed our expectations and provide strong evidence of the region's potential as a significant source of helium and other industrial gases. Our exploration strategy, supported by extensive historical data and modern sampling techniques, is yielding tangible results that could unlock substantial value for our shareholders."

"The detection of helium or hydrogen flowing at the surface is highly significant due to the small molecular size of these gases. Helium and Hydrogen are the smallest and lightest elements, with a very low molecular weights. These characteristics make both gases extremely mobile and capable of escaping from subsurface reservoirs into the atmosphere over time. For helium or hydrogen to be detected at surface levels, there must be a sustained and significant source of these gases continuously feeding upward, suggesting the existence of large, potentially commercially viable subsurface accumulations."

"Such discoveries are rare and could potentially be tapped for commercial use, especially in the case of helium, which is a critical resource with various industrial applications, including in medical technology, space exploration, and cryogenics."

"We have only begun to scratch the surface at Outokumpu. We are committed to accelerating our work program and leveraging these findings to further delineate the helium and hydrogen potential of the Outokumpu Belt. Our goal is to advance towards commercial viability in the most efficient and cost-effective manner possible"

### Market Abuse Regulation (MAR) Disclosure

The information contained within this announcement is deemed by the Company to constitute inside information as stipulated under the Market Abuse Regulations (EU) No. 596/2014 ('MAR') which has been incorporated into UK law by the European Union (Withdrawal) Act 2018.

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## Map of Outokumpu Tenement Belt

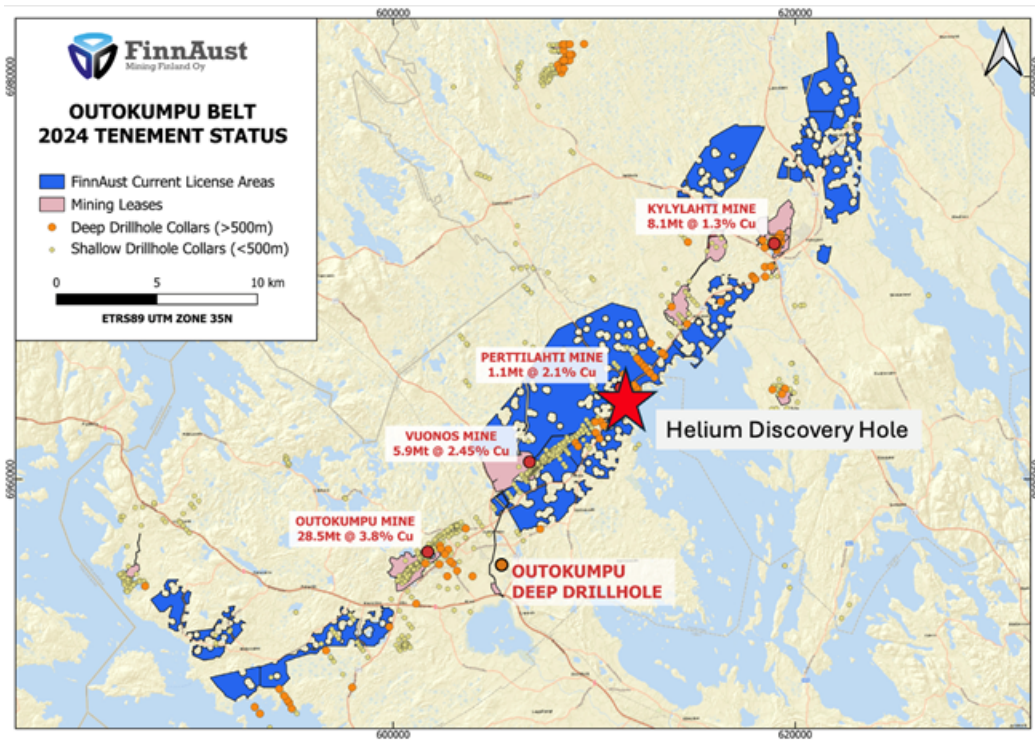


Figure 1. Outokumpu Belt current tenement status with historic drillhole collar and mine locations

## Helium Sampling Results from Perttilahti

HOLE_ID	Initial He% VOL	3 minute He% VOL	Stabilized He % VOL	Drill Year	HOLE_LENGTH (m)	HOLE_AZIMU	HOLE_DIP
PERTT_3	2.6	2.6	2.6	2016	848.7	322.3	-56.8
PERTT_6	30.6	16.0	10.7	2016	803.3	322.3	-50.6
PERTT_5	6.2	2.7	2.5	2016	799.3	322.3	-44.1

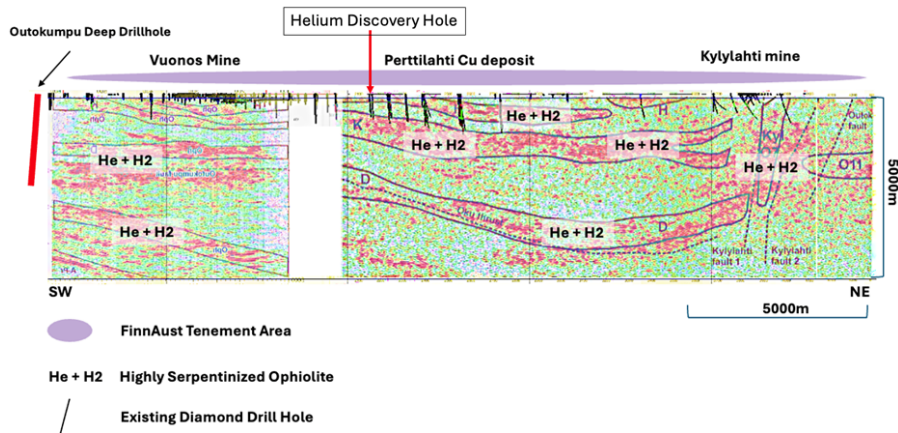


Figure 2. Outokumpu Belt showing existing drillholes, and Helium and Hydrogen generating highly serpentinized ophiolites

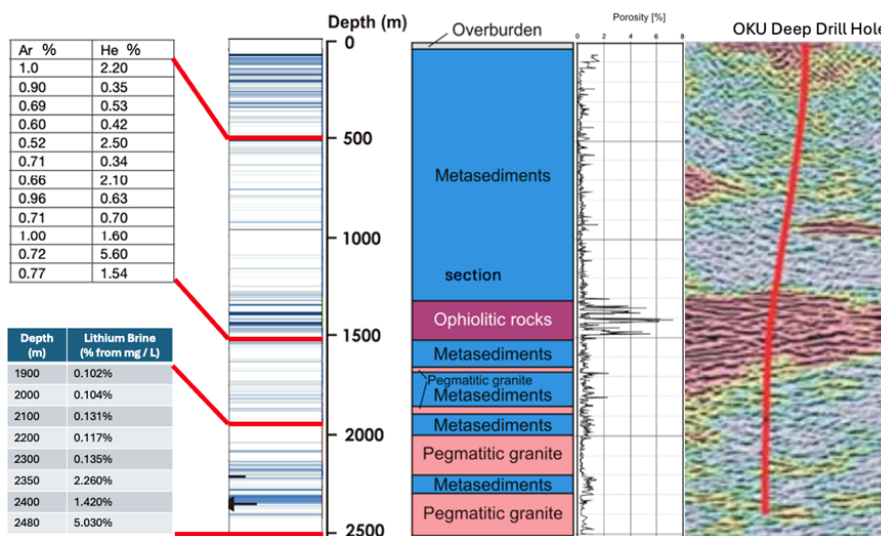


Figure 3. Helium, Argon, Lithium Results with Geophysical interpretation, modified from "Characterisation and Isotopic evolution of saline waters of the Outokumpu Deep Drill Hole, Kietäväinen 2013"

### Short Standard Operating Procedure (SOP) for He Field Gas Analysis:

1. **Navigate to the Drill Collar:**
  - o Arrive at the specified drill collar location using GPS coordinates.
2. **Initialize Equipment:**

- o Power on the FD-311 He analyzer.
  - o Allow the units to complete their pre-startup checks.
  - o Ensure all units display a 0.00 reading upon startup completion.
3. **Document Location and Hole ID:**
- o Record the Hole ID from the cap on the casing.
  - o Cross-reference the Hole ID with GPS data.
  - o Take a photograph of the Hole ID, GPS coordinates, and collar location.
4. **Insert Collection Tube:**
- o Insert the gas collection tube into the collar, avoiding any contact with water.
  - o Insert the tube to a depth of up to 20 cm or a safe depth as deemed necessary.



Figure 4: Helium Detector being prepared for casing vent test

5. **Conduct Initial Gas Measurement:**
- o Take an initial 3-minute reading using the analyzer.
6. **Clear and Reset Analyzer (If Gas is Detected):**
- o If gas readings are detected, complete the initial 3-minute measurement.
  - o Remove the analyzer from the collar.
  - o Clear the analyzer of any residual gases by pumping fresh air through the device for 30 seconds.
  - o Ensure the unit returns to a 0.00 reading.
7. **Repeat Measurement:**
- o Reinsert the collection tube and conduct a second 3-minute reading.



- o Record any changes in the readings, noting whether they increase, peak, remain consistent, or decrease over time.

#### 8. Finalize and Move to Next Location:

- o After completing the measurements, securely replace the cap on the drill collar.
- o Proceed to the next designated location.

This format provides a clear and structured SOP for field gas analysis, ensuring all steps are performed consistently and accurately.



#### References

Riikka Kietäväinen, L. A. 2013. Characterisation and isotopic evolution of saline waters of the Outokumpu Deep Drill Hole, Finland - Implications for water origin and deep terrestrial biosphere. Applied Geochemistry, Volume 32, 37-51.

Kukkonen, I. T., Rath, V., Kivekäs, L., Šafanda, J. & Čermák, V. 2011. Geothermal studies of the Outokumpu Deep Drill Hole. Geological Survey of Finland, Special Paper 51, 181-198.

Kukkonen, I. T. 2011. Outokumpu Deep Drilling Project 2003-2010. Geological Survey of Finland, Special Paper 51, 252 pages.

## About 80 Mile Plc:

80 Mile Plc, listed on the London AIM market, Frankfurt Stock Exchange, and the U.S. Pink Market, is an exploration and development company focused on high-grade critical metals in Tier 1 jurisdictions. With a diversified portfolio in Greenland and Finland, 80 Mile's strategy is centred on advancing key projects while creating value through partnerships and strategic acquisitions.

The Disko-Nuussuaq nickel-copper-cobalt-PGE project in Greenland is a primary focus for 80 Mile, developed in partnership with KoBold Metals. 80 Mile, through its wholly owned subsidiary Disko Exploration Ltd., has a definitive Joint Venture Agreement with KoBold Metals to guide and fund exploration efforts. The JV has completed intensive analysis and interpretation of the extensive geochemical, geophysical, and geological data collected during the previous exploration campaigns. Leveraging KoBold's proprietary artificial intelligence and machine learning platforms, this comprehensive analysis has resulted in the identification of seven initial priority targets within the project area. These seven priority targets exhibit spatial characteristics indicative of potential deposits on a scale comparable to renowned mining operations such as Norilsk, Voisey's Bay, and Jinchuan. The JV is now planning a focused ground-loop electromagnetic survey to refine and prioritize each locality appropriately.

In Finland, 80 Mile currently holds three large scale multi-metal projects through its wholly owned subsidiary FinnAust Mining Finland Oy. 80 Mile's Finland portfolio includes the Outokumpu project, where the discovery of industrial gases like helium and hydrogen adds significant economic potential to the already prospective copper-nickel-cobalt-zinc-gold-silver targets. 80 Mile is conducting further exploration to fully assess these resources.

80 Mile's recent acquisition of White Flame Energy expands its portfolio into the energy sector, adding large-scale licenses for industrial gas, natural gas, and liquid hydrocarbons in East Greenland. Approved by shareholders in July 2024, this acquisition diversifies the Company's assets and aligns with its strategy to contribute to sustainable energy solutions, while also exploring conventional energy resources.

The Dundas Ilmenite Project, 80 Mile's most advanced asset in northwest Greenland, is fully permitted and progressing towards near-term production. With a JORC-compliant Mineral Resource of 117 Mt at 6.1% ilmenite and an offshore Exploration Target of up to 530 Mt, Dundas is poised to become a major supplier of high-quality ilmenite. Recent discoveries of hard rock titanium mineralization, with bedrock samples showing nearly double the ilmenite content of previous estimates, further enhance the project's world-class potential. 80 Mile owns 100% of the Dundas Ilmenite Project under its subsidiary Dundas Titanium A/S in Greenland.

The Thule Copper Project is a significant component of 80 Mile's portfolio in northwest Greenland, focused on exploring and developing high-grade copper deposits within the Thule Basin in northwest Greenland. Leveraging existing infrastructure and exploration credits, the project is strategically positioned in an underexplored region with substantial mineral potential. 80 Mile's established basecamp at Moriusaq will support cost-effective exploration, aligning with the Company's broader strategy to secure high-quality copper and industrial gas projects.

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