

NI 43-101 PRELIMINARY ECONOMIC ASSESSMENT · EFFECTIVE JUNE 30, 2026

Albany Graphite Project

Northern Ontario, Canada

Most graphite studies model concentrate. This one models finished product.

The PEA models Albany graphite from the deposit through flotation to halogen-free thermal purification, and prices three specialty graphite grades at the end of it. All figures are in United States dollars.

HEADLINE ECONOMICS ¹

US\$3.9B

Post-tax NPV, 5% discount rate

27.4%

Post-tax IRR

US\$817M

Initial capex

4.4 yrs

Post-tax payback

US\$23,485/t

Weighted average price per tonne

The PEA is preliminary in nature. It includes inferred mineral resources that are considered too speculative geologically to have the economic considerations applied to them that would enable them to be categorized as mineral reserves, and there is no certainty that the PEA will be realized. Mineral resources that are not mineral reserves do not have demonstrated economic viability, and may be materially affected by environmental, permitting, legal, title, taxation, socio-political, marketing, or other relevant issues. Readers are cautioned not to assume that all or any part of the Indicated or Inferred Mineral Resources will ever be converted into Mineral Reserves or that the PEA represents, or will result in, an economically viable operation.

PRODUCTS AND PRICING ²

GRADE	ANNUAL	SHARE	US\$/T	REV.
4N	24,240 t	80.8%	20,541	70.6%
4N+	2,640 t	8.8%	19,300	7.3%
5N	3,120 t	10.4%	50,000	22.1%
Total	30,000 t	100%	23,485	100%

SHARE OF REVENUE



Life-of-project revenue US\$19,540M. Prices are referenced to disaggregated nuclear-grade pricing by product type and production region, exclude any country-of-origin premium, and are held constant in real terms. Dependent on commercial production, product qualification and customer acceptance, neither of which has been demonstrated.

PRICE SENSITIVITY ³

75% of base	US\$1,981M	IRR 17.0%
Base case	US\$3,855M	IRR 27.4%
125% of base	US\$5,484M	IRR 35.8%

Post-tax NPV at 5%. Less sensitive to equivalent percentage changes in capital and operating costs than to product price.

PIT SHELL SELECTED BELOW THE BASE PRICE ³

The pit shell used for the mine plan was selected at **US\$14,378/t**, approximately 61% of the base case price, while capturing more than 95% of the modelled value. Concentrate output is capped at 34,500 t/a based on the market-driven production assumptions used in the PEA.

OPERATING COSTS ⁴

US\$/T MILL FEED	
Mining	28.26
Concentrator and milling	11.72
General and administration	9.91
Purification plant	206.67
Concentrate transport	4.13
Total	260.69

Life-of-project operating cost US\$6,666M, of which the purification plant is US\$5,353M.

CAPITAL COSTS ⁵

US\$ MILLION	
Initial capital	817
Sustaining capital	1,162
Closure and rehabilitation	85
Total	2,063

Accuracy approximately ±50%, with a 25% contingency applied. The accuracy range is distinct from the contingency allowance.

¹ On a pre-tax basis: NPV US\$4,179M, IRR 27.7%, payback 4.4 years, cash flow US\$10,878M. Table 22.4; Section 22.5.1. ² Tables 19.2 and 22.3; Section 19.6.4. The difference between the 4N and 4N+ prices reflects the different points in the observed nuclear-grade price range to which each grade is referenced and is not a discount for higher purity. ³ Section 1.15; Figures 22.3 and 22.4. Pit shell selection, Section 16.1.5. ⁴ Tables 21.15 and 22.2; Section 21.3. ⁵ Table 22.2; Sections 21.2.1 to 21.2.3.

DEPOSIT TO ULTRA-HIGH-PURITY GRAPHITE ⁶

01 Open pit 2,703 t/d average Two breccia pipes	02 Concentrator Flotation 86% recovery	03 Concentrate 87 wt.% Cg Trucked off-site	04 Purification Halogen-free FBR 2,800°C · 96.4% recovery	05 4N / 4N+ / 5N 30,000 t/a Finished product
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THE PROJECT ⁷

Albany is located 68 km northwest of Hearst and within 30 km of the Trans-Canada Highway, with road, rail, power transmission and natural gas infrastructure nearby. The deposit comprises two breccia pipes within an intrusion-related vent system. The graphite mineralization is believed to be derived from carbon-dioxide-rich magmatic fluids, not metamorphosed sediments. Impurities concentrated at crystal boundaries and surfaces are believed to support thermal purification.

Concentrate is produced on site by flotation and trucked to a purification facility. Purification uses a halogen-free fluidized bed reactor operating at approximately 2,800°C. The purification flowsheet does not include any hydrofluoric acid or caustic bake purification or upgrading steps.

MINERAL RESOURCE ⁸

CATEGORY	TONNES	GRADE	CONTAINED
Indicated	23.1 Mt	4.14 wt.% Cg	957,075 t
Inferred	13.3 Mt	2.88 wt.% Cg	382,130 t

Effective June 30, 2026. Constrained by a pit shell above a 1.48% Cg cut-off grade, against a 0.30% Cg marginal grade. Open at depth. Mineral resources that are not mineral reserves do not have demonstrated economic viability.

BENCH-SCALE PURITY RESULTS ⁹

99.99985 wt.% C

Maximum measured, bench scale result, 5N product stream. Disclosed September 14, 2026

RESULT	BASIS	DISCLOSED
99.9995 wt.% C	Average of three samples	Sep 14, 2026
99.9992 wt.% C	Independent laboratory	Sep 22, 2025

All results are at bench scale. The September 22, 2025, independent-laboratory result of 99.9992 wt.% C was accompanied by a 2.60 ppm equivalent boron content.

WHAT REMAINS TO BE DEMONSTRATED ¹³

The next phase focuses on two key objectives: scaling thermal purification from bench testing to continuous commercial operation, and qualifying products with prospective customers. No offtake or supply arrangements are in place, and the product prices used in the study are not contracted.

COMMUNITY ¹⁴

The project is located within the traditional territory of Constance Lake First Nation and is supported by an Implementation Agreement.

PRODUCTION PARAMETERS ¹⁰

PARAMETER	
Mine life	30 years
Overall project life	~35 years
Mill feed	25.9 Mt at 3.87% Cg
Open pit production rate	2,703 t/d avg.
Beneficiation recovery	86.0%
Concentrate produced	~990,000 t at 87 wt.% Cg
Concentrate production cap	34,500 t/a
Purification recovery	96.4%
Saleable product, life of project	~832,000 t
Purification plant	Multiple modules of 7,500 t/a

INITIAL CAPITAL BY COST CENTRE ¹¹

US\$ MILLION	
Mining	99.3
Albany site: concentrator, tailings, infrastructure, geology	120.6
Offsite infrastructure, including purification site	382.6
Indirects, contingency and owner's costs	214.4
Total initial capital	817

PATH FORWARD ¹²

PEA (complete) → **PFS + FEED** → **Feasibility Study** → **Final Investment Decision**

Micon's Qualified Persons recommend advancing the project to Pre-Feasibility. The recommended work program includes:

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| 01 Geological studies | 05 Environmental baseline studies |
| 02 Geotechnical and hydrogeological studies | 06 Purification plant design |
| 03 Metallurgical testwork | 07 Purification plant site engineering |
| 04 PFS engineering | |

WHO PREPARED THE PEA STUDY ¹⁵

Title: NI 43-101 Preliminary Economic Assessment Technical Report on the Albany Graphite Project. Prepared by: Micon International Limited in accordance with National Instrument 43-101 - Standards of Disclosure for Mineral Projects. Date: Effective June 30, 2026; report date of Sept. 18, 2026.

⁶ Sections 1.15, 16.1, 17.4, 22.3. ⁷ Sections 1.4, 5.3, 7, 8.1, 10, 17.4, 18.7. ⁸ Tables 14.8 and 14.9; Section 14.8.4. ⁹ Zentek news releases dated September 14, 2026 and September 22, 2025. ¹⁰ Sections 1.15, 16.1, 17.4, 22.3. ¹¹ Table 21.1. Categories combined; see the technical report for the full breakdown. ¹² Table 26.1; Sections 25.5 and 26.1. ¹³ Sections 19.4 and 25.5. ¹⁴ Sections 4.4 and 20.4. ¹⁵ Section 2.5, Table 2.1. The full technical report is available on SEDAR+ (www.sedarplus.ca) under the Company's profile. Readers should review the technical report in full. The scientific and technical information in this document has been reviewed and approved by Peter Wood, P.Eng., P.Geo., Vice President Development of Albany Graphite Corp., and a Qualified Person as defined under National Instrument 43-101.