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American Critical Minerals Announces Appointment of Dean Pekeski as Senior Advisor to the Company

VANCOUVER, BRITISH COLUMBIA November 4, 2025 **- American Critical Minerals Corp.** ("**American Critical Minerals**" or the "**Company**") (CSE:KCLI | OTCQB:APCOF | Frankfurt:2P3) is pleased to announce that it has appointed Dean Pekeski as Senior Advisor to the Company with immediate effect.

Dean has been involved in senior technical and corporate positions across the mining sector for over 33 years with a particular focus on potash exploration and development for over 17 years of that time. In particular, Dean was Executive Vice President of Western Potash Corp. (WPX- TSX) from 2008 – 2015 and lead discovery and development of the Milestone Potash Solution Mining Project in Saskatchewan which is currently 80% complete. Since 2016 Dean has been involved with Peak Minerals Inc., a private Company developing the Sevier Playa Potassium Sulphate (SOP) Brine Project in Utah where he has served as Project Director and CEO, President & Director since 2020.

Dean is intimate with all aspects of potash exploration, solution mining, brine evaporation, and processing of potassium, magnesium, sodium chloride, bromine, and lithium, rich brines. During his career at Western Potash and Peak Minerals he has advanced projects through key project milestones including discovery, technical studies (PEA, PFS, FS, FEED), geotechnical and constructability testing, process pilot testing, successful environmental permitting at all government levels, securing key supply and construction contracts and off-take agreements, and financing. Throughout his career Dean has raised more than US$120M capital at appropriate valuations to enable the company's he has worked for to meet milestones, growth and market share. He has a deep network with a number of equity, debt, and royalty investors, is well connected with peer / industry companies across Utah and beyond, and has good connections into local and federal government funding initiatives and State and Federal regulators. He is also intimate with global potash supply, demand, pricing, and development projects globally.

Dean holds Honors B.Sc. Geology, University of Western Ontario, London, Ontario,1994, is a PDAC Member and has his P.Geo Registration with the Association of Professional Engineers and Geoscientists of Saskatchewan. He is also an Director of Fidelity Minerals Corp. and Power One Resources Corp.

Management Commentary

Simon Clarke President & CEO stated, "we are extremely pleased to welcome Dean to our team, his knowledge, background and insights, as well as his strategic relationships in Utah and beyond will be extremely valuable as we continue to advance our Green River Project. His in-depth technical knowledge in potash exploration, development and processing will be invaluable as we move to drill and de-risk the Green River Project and the timing of his appointment could not be better as we finalize our drill targets and drill contracts and prepare to drill in the New Year.

His ability to raise capital for potash development and to attract strategic sector partners and off takers, as well as his links into State and Federal government agencies, will help to ensure we have access to appropriate capital as

we look to aggressively develop this project as a major potential source of both potash and lithium to strengthen US Domestic Supply Chains of these Critical Minerals."

About American Critical Minerals' Green River Potash and Lithium Project

The Green River Potash and Lithium Project is situated within Utah's highly productive Paradox Basin, located 20 miles northwest of Moab, Utah. It has significant logistical advantages including close proximity to major rail hubs, airport, roads, water, towns and labour markets. It also benefits from close proximity to the agricultural and industrial heartland of America and numerous potential end-users for its products.

The history of oil and gas production across the Paradox Basin provides geologic data from historic wells across the Project, and the wider Basin, validating and de-risking the potential for high grade potash and large amounts of contained lithium. Wells in and around the project reported lithium up to 500 ppm, bromine up to 6,100 ppm and boron up to 1,260 ppm (Gilbride & Santos, 2012). This data is reinforced by nearby potash production and the advanced stage of neighbouring lithium projects. The Paradox Basin is believed to contain up to 56 billion tonnes of lithium brines, potentially the largest such resource in US (Source:AnsonFastmarketsPresentation– https://wcsecure.weblink.com.au/pdf/ASN/02823465.pdf).

The Company's National Instrument 43-101 – *Standards of Disclosure for Mineral Projects* ("NI 43-101") Potash Exploration Target consists of 500 million to 950 million tonnes of sylvinite (the most important source for the production of potash in North America) grading from 12% to 18% potassium oxide based on elog (eK2O=19% to 29% potassium chloride based on elog (eKCl)). Its Exploration Targets for Lithium and Bromine are 2.1 billion cubic meters (brine volume) grading from 71.6 to 216.3 parts per million lithium; and 2.1 billion cubic meters (brine volume) grading from 3,656 to 4,741 parts per million bromine.**

The Company holds a 100% interest in eleven State of Utah ("SITLA") mineral and minerals salt leases covering approximately 7,050 acres, 1,094 federal lithium brine claims (BLM Placer Claims) covering 21,150 acres, and 11 federal (BLM) potash prospecting permits covering approximately 25,480 acres. Through these leases, permits and claims the Company has the ability to explore for potash, lithium and potential by-products across the entire Green River Project (approx. 32,530 acres). The Company is authorized to drill a total of 7 drill holes across the Project (pending bonding the recently approved 4 drill holes).

Intrepid Potash, Inc. is America's largest potash company and only U.S. domestic potash producer and currently produces potash from its nearby Moab Solution Mine, which the Company believes provides strong evidence of stratigraphic continuity within this part of the Paradox Basin (www.intrepidpotash.com). Anson Resources Ltd. has advanced lithium development projects contiguous to the northern boundary of our Green River Project and neighbouring to the south. Anson has a large initial resource, robust definitive feasibility study and has recently completed successful piloting operations through its partnership with Koch Technology Solutions, as well as an offtake agreement with LG Energy Solution. The Anson exploration targets encompass the combined Mississippian Leadville Formation and the Pennsylvanian Paradox Formation brine-bearing clastic layers, which also underlie American Critical Minerals' entire project area (www.ansonresources.com)*.

In 2022, the U.S. imported approx. 96.5% of its annual potash requirements with domestic producers receiving a higher sales price due to proximity to market (intrepidpotash.com/ August 15, 2024, Investor Presentation). In March 2024, the US Senate introduced a bill to include key fertilizers and potash on the US Department of Interior list of Critical Minerals which already includes lithium, and this process is well advanced with potash being added to the USGS Draft Critical Minerals List. In August 2025. Recent market estimates suggest that the global potash market is over US$50 billion annually and growing at a compound

annual growth rate ("CAGR") of close to 5%. Annual lithium demand is now estimated to be over 1 million tonnes globally and continuing to grow rapidly***.

****Exploration Targets are conceptual in nature and there has been insufficient exploration to define them as Mineral Resources, and, while reasonable potential may exist, it is uncertain whether further exploration will result in the determination of a Mineral Resource under NI 43-101.

Qualified Person

The Technical content of this news release has been reviewed and approved by Dean Besserer, P.Geo., the Chief Operations Officer of the Company and a qualified person for the purposes of NI 43-101.

On behalf of the Board of Directors

Simon Clarke, President & CEO
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******American Critical Minerals' management cautions that results or discoveries on properties in proximity to the American Critical Minerals' properties may not necessarily be indicative of the presence of mineralization on the Company's properties.*

***A report titled "NI 43-101 Technical Report – Green River Potash and Lithium Project, Grand County, Utah, USA", prepared by Agapito Associates Inc., and dated October 27, 2025, quantifies the Green River Potash Project's potash, lithium and bromine exploration potential in the form of NI 43-101 Exploration Targets. The Exploration Target estimate was prepared in accordance with NI 43-101. It should be noted that Exploration Targets are conceptual in nature and there has been insufficient exploration to define them as Mineral Resources, and, while reasonable potential may exist, it is uncertain whether further exploration will result in the determination of a Mineral Resource under NI 43-101. Details of the basis on which the Exploration Targets have been determined is included in the Report. The Exploration Target stated in the Report is not being reported as part of any Mineral Resource or Mineral Reserve. A copy of the report can be accessed on both SEDAR+ (www.sedarplus.ca) and the corporate website for the Company: www.acmineralscorp.com.*

****United States Geological Survey, Mineral Commodity Summaries, January 2024 (https://pubs.usgs.gov/periodicals/mcs2024/mcs2024-potash.pdf).*

CAUTIONARY STATEMENT REGARDING FORWARD-LOOKING INFORMATION

This news release contains forward-looking information or forward-looking statements within the meaning of applicable securities legislation. All statements, other than statements of historical fact, are forward-looking statements and are based on expectations, estimates and projections as at the date of this news release. Any statement that involves discussion with respect to predictions, expectations, beliefs, plans, projections, objectives, assumptions, future events or performance (often, but not always using phrases such as "plans", "expects", "is expected", "budget", "scheduled", "estimates", "forecasts", "intends", "anticipates", or "believes" or variations (including negative variations) of such words and phrases, or state that certain actions, events or results "may", "could", "would", "might" or "will" be taken, occur or be achieved) are not statements of historical fact and may be forward-looking statements. In this news release, forward-looking statements relate, among other things, to: statements about exploration targets; magnitude or quality of mineral deposits; anticipated advancement of mineral properties or programs; and future exploration prospects.

Although the Company believes that such statements are reasonable, it can give no assurances that such expectations will prove to be correct. All such forward-looking statements are based on certain assumptions and analyses made by the Company in light of their experience and perception of historical trends, current conditions and expected future developments, as well as other factors management believes are appropriate in the circumstances. Forward-looking statements also involve known and unknown risks, uncertainties and other factors which may cause the actual results,

performance or achievements of the Company to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements. Important factors that could cause actual results to differ from this forward-looking information include those described under the heading "Risks and Uncertainties" in the Company's most recently filed MD&A.

Forward-looking information contained herein are made as of the date of this news release and the Company does not intend, and expressly disclaims any obligation to, update or revise the forward-looking information contained in this news release, except as required by law. There can be no assurance that forward-looking statements will prove to be accurate, as actual results and future events could differ materially from those anticipated in such statements. Accordingly, readers should not place undue reliance on forward-looking statements.

Neither the Canadian Securities Exchange nor its Market Regulator (as that term is defined in the policies of the Canadian Securities Exchange) accepts responsibility for the adequacy or accuracy of this release.