Written Submission on Canada's Critical Mineral Strategy: Discussion Paper

By: The Prospectors & Developers Association of Canada (PDAC)

About the Prospectors & Developers Association of Canada

The Prospectors & Developers Association of Canada (PDAC) is the leading voice of the mineral exploration and development industry, which supports 719,000 people in direct and indirect employment, and contributes more than $100 billion to Canada's GDP every year. The industry is also the largest private-sector industrial employer on a proportional basis of Indigenous Peoples in Canada, and a key partner of Indigenous businesses.

Representing over 6,000 individual and corporate members both in Canada and around the world, PDAC's work centers on supporting a competitive, responsible, and sustainable mineral industry.

PDAC was encouraged by the findings outlined in Report #4 of the Standing Committee on Industry and Technology (INDU) titled *Positioning Canada as a Leader in the Supply and Processing of Critical Minerals* (INDU Report) and we echo all ten recommendations contained in the report. It is PDAC's view that government should closely consider these recommendations as they pertain directly to the questions posed in the Discussion Paper.

PDAC looks forward to working with government to ensure our sector can responsibly access the capital, lands and skills needed to remain an integral component of Canada's commitment to climate action and a low-carbon future, while continuing to bring significant economic and social benefits to Canadians from coast to coast to coast.

Prioritization and Areas of Focus

Do you concur that the value chains identified and their associated minerals offer Canada the greatest opportunities for economic growth?

As the world looks for new sources of critical inputs, Canada's vast potential for new mineral discoveries represents one of the greatest economic opportunities in a generation and a fundamental component in meeting our own domestic needs over the coming decades. To capitalize on this opportunity, we must see sustained investment in mineral exploration and downstream processing capacity so that Canadian minerals and metals can reach markets within realistic timeframes, deliver the desired benefits and drive meaningful change. Demand for critical minerals, in particular, is likely to increase substantially as jurisdictions around the globe attempt to transition to lower-carbon footprints. There is no global energy transition without minerals, and Canada can be the supplier-of-choice for both our own economy and those of our strategic partners. Enacting policy to strengthen our mineral sector can curtail Canada's reliance on foreign production of critical minerals that in all likelihood come from jurisdictions with far lower environmental, sustainability and governance standards and best practices.

It is imperative to direct focus towards value chains in a logical and rational order, as premature investment in the areas of downstream manufacturing and value added processes ahead of increased mineral exploration, discoveries and processing capacity could easily lead to supply chain imbalances. In such a case, domestic critical mineral demand could spike well in advance of any foreseeable ability to meet such demands from Canadian sources. PDAC emphasizes that an early and consistent focus on exploration, development and processing capacity is necessary to create a self-sustaining domestic supply chain of critical minerals and related downstream products.

Are the six areas of focus and their associated objectives the right ones to help Canada achieve its vision on critical minerals for domestic and global value chains?

The six areas of focus outlined directly impact Canada's capacity to expand critical mineral supply chains to support the Electric Vehicle (EV) and green technology industries. NRCan and other federal ministries, such as Environment and Climate Change Canada, must increase interconnectivity to ensure government can consider and respect the goals of the critical mineral strategy as they relate to other efforts such as Canada's Target 1 Challenge of protecting 30% of Canada's lands and oceans by 2030, and achieving net zero carbon emissions by 2050. Without coordination between these federal initiatives, there is a significant risk that these efforts will generate competing forces and lead to few or no overarching goals being met.

Drive Research, Innovation, and Exploration

What are priority areas for research programs (academia, industry, governments)?

Funding for public geoscience programs has proven to be economically effective with research showing that every $1 in public geoscience spending, is estimated to generate more than seven times that in overall economic benefit to Canada (Ernst & Young, 2019). Information provided from public geoscience research can support decision-making and facilitate greater early-stage engagement and collaboration between Indigenous peoples, industry, regional governments and other stakeholders. This is a necessary step in understanding Canada's mineral potential and the only way to conduct evidence-based land management decisions in appropriate timeframes. As such, core activities such as detailed geological mapping through the Geo-mapping for Energy and Minerals (GEM) program should remain a top priority for NRCan. These fundamental activities also provide a key opportunity to incorporate Indigenous knowledge and increase the participation of Indigenous peoples in the future of Canada's mineral industry.

The Targeted Geoscience Initiative (TGI) program is instrumental in facilitating the data-centric shift needed for the next generation of geoscience applications. TGI compliments the Canadian Minerals and Metals Plan (CMMP) by propelling innovation and investment in Canada, through its thematic approach to ore deposit models. The vision of the Pan-Canadian Geoscience Strategy (PGS), which focuses on a framework for collaboration both domestically and internationally, and prioritizes mineral and energy potential models to support land use planning, strategically positions Canada to leverage public geoscience and address challenges and priorities related to mineral exploration. As such, the TGI program will be necessary to leverage technology and data to develop Canada's geological resources, including minerals critical to the Canadian economy and a transition to a low-carbon future.

Public Geoscience programs also facilitate collaboration throughout the sector between indigenous peoples, academia, industry, regional governments and other stakeholders. Beyond the scope of TGI and GEM, Federal funding and collaboration with Provincial and Territorial Governments is required to undertake regional mineral resource assessments. This is a necessary step in understanding mineral potential and the only way to conduct evidence-based land management decisions in Canada.

What more should be done to drive critical mineral exploration and innovation?

Mineral exploration is a high-risk endeavor and attracting investment for early-stage, non-revenue generating exploration companies is extremely difficult. To address this challenge, the 'made-in-Canada' flow-through share (FTS) mechanism plays a critical role in financing domestic exploration. Over the last decade, flow-through shares have generated more than two-thirds of all funds raised on Canadian exchanges for domestic exploration and is a primary way to access capital when other sources are sparse.

In that context, PDAC is very pleased to see the initiative of a 30% Critical Mineral Exploration Tax Credit (CMETC), and we have a few emphases around that, with the aim of increasing the effectiveness of the CMETC while maintaining investor confidence in the FTS mechanism.

The FTS regime is significantly dependent on, and affected by, investor confidence. While the CMETC is in principal a positive step towards increasing critical mineral exploration in Canada, there is also the potential to create additional uncertainty. The CMETC is reliant upon an attestation from a Qualified Person (QP) as will be defined in forthcoming legislation. The QP, in their professional capacity, is responsible for determining the critical mineral potential of a given exploration activity. These QPs have in the past been met with undue scrutiny by regulators, such as with National Instrument 43-101. It is vital for maintaining investor confidence that regulators respect the authority and professional integrity of QPs in making such determinations.

In addition, we recommend Finance to establish the Mineral Exploration Tax Credit (METC) and the new CMETC as permanent federal tax credits. Currently the METC is in year three of a five-year extension, the first five-year certainty since its inception in 2000. Enshrining METC permanently will send a strong signal to investors that Canada is the number one destination for critical mineral investment and attract grassroots exploration activity over the sustained timeframe needed to facilitate a meaningful amount of critical mineral deposit discoveries within Canada.

To attract the level of investment needed and secure Canada as the top jurisdiction for mineral investment into the future, a number of additional initiatives should be undertaken:

1. Employ the use of science and evidence-based decision-making processes. To meet our future mineral needs, and Canada's broader goals for emissions reductions and ecological conservation, we must have a fulsome understanding of where critical mineral potential exists, and ensure land conservation decisions are credible, inclusive and evidence-based. To serve the public good, an understanding of where the highest prospects for future mineral discoveries exists is necessary for governments and the public to confidently look ahead and make informed infrastructure, energy and conservation decisions.

   An increase in public geoscience funding and financial support for provinces and territories to develop comprehensive mineral resource assessment models would add to this evidence base, and in turn, help inform future policy decisions to ensure we do not inadvertently limit our potential.

2. Ensure relevant departments and agencies are sufficiently resourced to facilitate consistent, predictable and timely application of Acts that directly affect natural resource project development, such as the Impact Assessment Act, Fisheries Act and Canadian Navigable Waters Act.

3. Support a significant increase in domestic processing and refining capacity, in particular for critical minerals, as currently a significant percentage of nationally produced raw material is transported internationally for processing, mainly to China. Downstream manufacturing in Canada could be bolstered with the establishment of processing capacity close to areas of extraction, in particular with increasing focus on international supply chain pressures and transportation costs.

4. Ensure legislation that relates to fiscal incentives directed towards exploration for critical minerals, such as the Critical Minerals Exploration Tax Credit (CMETC), reference and are administered based on Canada's Critical Minerals List as defined by NRCan, rather than incorporating explicit subset lists of minerals into the *Income Tax Act*. Technological demands for minerals and the inputs required for renewable and green technologies may shift over time, as recognized by NRCan in constructing Canada's Critical Minerals List and committing to review and possibly revise the list on a periodic basis. NRCan is best placed to interpret the scientific, technological and industrial demands for critical minerals in Canada into the future and any related legislation should respect this fact. Explicitly listing a subset of minerals in Canada's *Income Tax Act* versus referencing Canada's Critical Mineral list removes future flexibility and will impede the stated goals of Canada's Critical Minerals Strategy.

These recommendations dovetail directly with recommendation #5 in the INDU Report.

Accelerate Project Development

How can we streamline the regulatory processes to better facilitate project development?

Canada has a robustly regulated mineral industry with a record of strong environmental and safety performance. However, the regulatory landscape for the Canadian mineral industry can be complex, uncoordinated, inefficient and difficult for proponents to navigate. A number of factors affect the decisions made by companies about where to explore for minerals, including geological potential, availability of infrastructure, perceived / actual social or political risks, availability of prospective land and regulatory efficiency.

Regulatory and policy factors play a significant role in determining where and how limited exploration dollars will be spent among competing jurisdictions and profoundly influence how often new, economically viable deposits are found. The ability of the industry to continue responsibly generating economic opportunities, and producing the minerals and metals needed by modern societies, will depend on future exploration discoveries. These, in turn, require regulatory processes that are effective, clear, efficient and balanced.

PDAC understands industry in Canada conducts mineral exploration, mine development and mining with the principles of sustainable development at the forefront, and in step with the environmental, social, and economic priorities of Canadians. A strong and vibrant mineral sector that operates on this basis can deliver local, regional and national benefits, while mitigating any unavoidable adverse environmental or social impacts.

It is critical to ensure that our regulatory processes include key elements that are the following:

1. *Integrated - Environmental, Social and Economic Goals*

Regulatory regimes should adopt an integrated, holistic framework of analysis that balances environmental protection and conservation goals with the economic and social benefits that mineral resource development generates for local communities, governments and for the end-users of the products made with minerals and

metals. Targeted, direct and collaborative engagement with industry and all stakeholders can facilitate new collaborative and dynamic agreements that increase economic development and long-term environmental stewardship.

2. *Clear, Consistent & Transparent*

It is critical that regulatory processes be clear, consistent and transparent, particularly in regards to triggers, timelines and scope. In particular, to establish laws of general application across provincial and territorial jurisdictions, and policies built into land-use planning, we need to consider how protected lands integrate with other established processes. For instance, in the Northwest Territories at the start of an exploration program, companies must first go through a conformity check with the established First Nation land-use plan.

There must be clear integration of existing processes that identify areas to ensure all stakeholders have legal and operational certainty about what they can and cannot do. In addition, the government must ensure consistency and transparency with other federal initiatives, for the development of Canada's Critical Minerals Strategy. With overlapping areas of focus, ECCC and NRCan should collaborate to ensure alignment of individual ministerial initiatives. Coordination between these two ministries in particular will be essential to implementing the Canadian Minerals and Metals Plan and in achieving the goals of the Critical Minerals Strategy.

PDAC has shared these recommendations with ECCC, noting the data produced by NRCan as part of mapping Canada's green economic pathways for battery minerals as an example piece of evidence to incorporate in a multi-layered assessment process across ministries. Similar mapping process that consider conservation, species at risk, alternative energy and critical mineral development priorities are essential to make informed land management decisions.

3. *Scalable*

Regulatory processes should be proportionate to the nature, scope and duration of the related activities and their potential impacts, which differ depending on the stage, type and size of a project.

4. *Timely*

A regulatory process should move forward as rapidly as possible, operate within agreed upon timelines that balance the participation of stakeholders and rights-holders, provide adequate time for regulators to review information, and account for the commercial realities of the proponent.

5. *Evidence-Based*

PDAC has long advocated for inclusive, data-driven approaches to land management that incorporate mineral resource assessments, which effectively balance economic development and ecological conservation. Decisions

made throughout regulatory processes should be based on evidence, whether rooted in modern science or traditional Indigenous knowledge.

We encourage NRCan to work with Environment and Climate Change Canada to consider both Indigenous perspectives on areas of cultural significance and geoscience data for critical mineral mapping, through evidence based-mineral overlays, for future land use planning and conservation decisions. Specifically, the government must prioritize consideration of mineral potential in land management decision-making. As Canada is striving to meet its environmental commitments to lower carbon emissions, consideration of known critical mineral

resources and the potential for new discoveries based on geoscience data, should be prioritized to create an evidence-based mineral overlay. Furthermore, government should direct greater resources towards data-based land management practices by exploiting available technologies to facilitate reconnaissance, monitoring and conservation efforts.

6. *Resourced*

It is essential that public authorities / regulators have access to the human and financial resources necessary to undertake their work and fulfill their responsibilities effectively and efficiently.

PDAC recommends that governments ensure that Canada's regulatory regimes are effective, efficient, predictable, coordinated and balanced in order to reduce uncertainty, delays and costs that undermine Canada's investment climate in accordance with recommendation #2 in the INDU Report.

Build Sustainable Infrastructure

What regional infrastructure gaps must be addressed (e.g., transportation and clean energy) to enable the sustainable development of Canada's critical mineral resources?

Remote and northern Canada is rich in mineral resources and the minerals industry is a proven private sector driver of economic activity in these areas. In these jurisdictions, the mining industry accounts directly for 20-25% of GDP and has paid approximately $800 million in taxes and royalties to governments over the last ten years. The development of infrastructure in remote and northern Canada is critical to unlocking mineral potential and enhancing economic development opportunities. However, the cost premium faced by companies exploring and mining in remote areas due to a lack of transportation and energy infrastructure is a barrier to mineral development. Estimates suggest more than 70% of mineral discoveries made in northern and remote Canada remain undeveloped, preventing potential economic benefits from reaching these areas.

Industry research has identified it can cost as much as 6 times more to explore, 2 to 2.5 times more to construct, and 30-60% higher to operate mines in northern regions compared to their southern counterparts. A key impact of this cost premium is that undeveloped deposits are stranded. Reducing the costs of operating in the territories by just 10% through strategic transportation infrastructure investments could spur exploration activity and help new mines open up.

PDAC recommends addressing the infrastructure deficit through increased, strategic investments in critical transportation and energy infrastructure. Furthermore, we recommend that the government must expand the Broadband Fund to target specific regions with high potential for mineral development to encourage exploration

activity and provide the basic operating environment for companies to conduct work efficiently and to the high standards expected in Canada.

Advance Indigenous Reconciliation

How can Indigenous governments and organizations, communities, and individuals partner and participate in critical mineral value chains (including regulatory processes)? How can government and non-Indigenous industry proponents support this effort?

Improving the effectiveness of regulatory regimes is paramount for the success of mutually beneficial partnerships that allow Indigenous communities to meaningfully participate and maximize the social and economic opportunities of the mineral industry. The mineral industry is the largest private-sector industrial employer on a proportional basis of Indigenous Peoples in Canada and a key partner of Indigenous businesses from coast to coast. Our members understand the importance and value of continuous engagement with Indigenous peoples and communities, establishing and maintaining respectful relationships is integral to the mineral exploration process. Notably, there are over 400 active agreements between Indigenous Peoples and mineral industry companies in Canada today that incorporate Indigenous knowledge and conservation practices.

With the passing of Bill C-15: *An Act Respecting the United Nations Declaration on the Rights of Indigenous Peoples* (UNDRIP), in 2021, the real work in developing and implementing an Action Plan has just begun. The Action Plan and new National Benefits Sharing Framework must be developed in consultation with government, Indigenous communities, and all impacted industry stakeholders. PDAC will continue to advocate for clarity around FPIC, monitor mineral industry implications of the Impact Assessment Act (IAA) and highlight the importance of jurisdictional coordination in the Action Plan's implementation. We urge the government to allocate sufficient resources to develop the Action Plan, and welcome opportunities for the mineral exploration sector to contribute to future consultations related to infrastructure, economic development, and regulatory processes.

We urge the Federal Government to honour their commitment to implement the Truth and Reconciliation Commission's Calls to Action and National Inquiry into Missing and Murdered Indigenous Women and Girls' Calls for Justice.

PDAC welcomes the government's $103.4 million allocation in Budget 2022, to advance economic reconciliation in the natural resource sector, including $25 million to support Indigenous participation in the Critical Minerals Strategy through early engagement and community capacity building. Specifically, we recommend that the government use these funds and provide additional funding for training and educational services for Indigenous leaders and communities to build capacity in order to ensure meaningful and equitable participation in future regulatory consultation processes. To augment funding, government should work to develop educational tools to provide information and improve access to and interactivity with public geoscience data and other evidence-based information to help inform decision-making at the community and regional levels.

More broadly, we encourage the government to deliver on promises to invest in education, health and critical infrastructure such as housing, water and high-speed internet. Basic access to these necessities of life help create equitable opportunities for generations to come.

As a proven leader in Indigenous engagement, the mineral industry understands that knowledge of regulatory regimes, access to education opportunities and increased capacity lead to collaborative partnerships. PDAC works to develop tools and resources for the exploration and development sector to help inform and support industry engagement. These include our Social and Economic Impact Reports and Capacity Support Tool that provide insight and recommendations for industry. Equitable participation in future regulatory consultation processes will foster integration of traditional knowledge into mineral industry activities and creation of mutually beneficial relationships between industry and Indigenous Peoples in Canada.

Furthermore, PDAC fully endorses recommendation #9 in the INDU Report.

Grow a Diverse Workforce and Prosperous Communities

How do we leverage critical minerals investment into more diverse skills training, employment, and regional outcomes, including for local, rural and Indigenous communities?

The mineral industry contributed over $100 billion to GDP in 2019, is the largest private sector industrial employer of Indigenous people on a proportional basis and a cornerstone of Canada's economy. Natural Resources Canada (NRCan) estimates nearly $3.8 billion will be spent on domestic mineral exploration in 2022. Much of this activity takes place in northern and remote Canada and the mineral industry holds a unique potential to accelerate economic development in these regions.

In 2019, PDAC developed *Gender Diversity and Inclusion: A Guide for Explorers* as an extension of PDAC's signature sustainability toolkit, *e3 Plus*. This guidebook provides practical recommendations on how to respect intersectionality within workplaces and community settings. This guidebook tailors the *Gender-Based Analysis Plus* (GBA Plus) process already used by the Government of Canada, towards the mineral exploration and mining industry.

Some examples the guidebook provides around leveraging critical minerals investment towards developing a diversity and inclusion strategy include:

"Invest in initiatives or programs like the *MiHR Gender Equity in Mining (GEM) Toolbox*. This program, developed as part of the Gender Equity in Mining Works initiative, serves to help exploration and mining companies update their policies and practices— identifying and removing unintended barriers—to develop a workplace that is inclusive and welcoming for all.

Provide training opportunities that build women's skills and readiness for positions where they are needed and traditionally underrepresented. Some examples of successful training programs include:

- *Women Building Futures*: Edmonton-based organization focused on construction and trade skills for women as well as readiness building.

- *The Women in Resource Development Corporation*: Based in Newfoundland and Labrador, this company offers an Orientation to Trades program, a database of mentors, and direct support to employers wanting to increase gender diversity.

- *Aboriginal Women in Mining*: A program developed by Detour Gold Corporation to prepare Indigenous women for the lifestyle changes required for on-site mining work. The program supports women as they leave home for a week and helps them address family issues and the impacts remote work sites have on family life.

PDAC supports application of *GBA Plus* in developing the critical mineral strategy and welcomes the use of PDAC's *Gender Diversity and Inclusion: A Guide for Explorers* as a *GBA Plus* resource in the mineral industry.

Strengthen Global Leadership and Security

How might the Government work with its partners and stakeholders so that greater value is placed on high ESG standards throughout the value chain?

Canada's mineral industry leads the world in evolving sustainability, community engagement and environmental stewardship best practices. Mineral exploration and extraction is also carefully regulated in Canada to achieve world-leading standards and the level of public disclosure is unparalleled with respect to material technical, financial and ESG-related factors. Notably, the amount and type of required disclose for Canadian public issuers continues to evolve and grow particularly with respect to ESG practices. For example, the International Financial Reporting Standards (IFRS) is developing a new ESG disclosure framework through the International Sustainability Standards Board. With these strengths, the federal government must be committed to fostering development of new mines so Canada has the minerals and metals needed to reduce future emissions.

Recycling alone will not satisfy future demand for critical minerals, and reducing emissions in Canada will require exploration and development of new sources of minerals. Therefore, we must secure domestic supply of the upstream components needed for low-carbon and emission-reduction technologies.

Competitiveness and investment attractiveness rely on regulatory certainty. Government must ensure sufficient funding and resources are provided to Indigenous and industry partners to navigate through Canadian regulatory processes that govern mineral development. Clear guidance and understanding of rights and responsibilities will lead to successful project partnerships. Federal priorities such as UNDRIP implementation, emission reduction and conservation require regulatory regimes that are efficient, transparent and predictable.

In 2003, PDAC developed *e3*, or *Excellence in Environmental Exploration* and launched *e3 Plus* in 2009 recognizing that best practice includes social and health and safety considerations. With *e3 Plus,* PDAC became the first industry association in the world to develop detailed guidance for companies on how to explore responsibly.

In the *Principles and Guidance Notes* of *e3 Plus* there are eight principles for responsible exploration:

1. Adopt Responsible Governance and Management
2. Apply Ethical Business Practices
3. Respect Human Rights
4. Commit to Project Due Diligence and Risk Assessment
5. Engage Host Communities and Other Affected and Interested Parties
6. Contribute to Community Development and Social Wellbeing
7. Protect the Environment
8. Safeguard the Health and Safety of Workers and the Local Population

To complement the *Principles and Guidance Notes*, PDAC developed three practical guidance toolkits:

1. *Excellence in Environmental Stewardship*
2. *Excellence in Social Responsibility,* including a new chapter on community engagement (2015)
3. *Excellence in Health & Safety Toolkit*

PDAC supports incorporating the foundational teachings and best practice outlined in e3Plus across the entire critical minerals value chain, and fully supports recommendation #8 in the INDU Report.