

# **PERMIT TIMES FOR MINING EXPLORATION IN 2017**

**Ashley Stedman and Kenneth P. Green**





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## Executive Summary

Since 1997, the Fraser Institute has collected information from mining company executives, who evaluate mining policies in jurisdictions around the world. One theme that regularly appears in the comments we receive as part of that survey is a perception that permit-times—the length of time it takes to get approval for mining exploration—has grown longer and more onerous over the years. Based on the perceptions of respondents, Canadian jurisdictions, on average, are falling behind on the majority of measures when compared to their international competitors. British Columbia, in particular, appears to be a laggard on some measures, along with the territories. Respondents indicated that not only were they waiting longer to receive their permits than they were in competing provinces like Ontario and Quebec, but British Columbia also offered less certainty throughout the permitting process.

On one of the specific dimensions of permit-times that we asked respondents to assess—how long it takes to receive the necessary permits—85% of respondents in Quebec, 71% of respondents in Ontario, and 61% of respondents in British Columbia indicated that they received the necessary permits in six months or less. Canadian jurisdictions, on average, performed better on this measure when compared to competing jurisdictions.

The results indicate that permit approval times over the last ten years are lengthening in British Columbia, Ontario, and Quebec when compared to last year's results. In 2017, 83% of respondents in Ontario said that permit times had lengthened (over the last ten years) compared to 73% in British Columbia and 50% in Quebec. On average, more respondents in the Canadian jurisdictions indicated that permit times were lengthening (over the last ten years) compared to respondents in Australia and Scandinavia.

When asked about transparency in the permitting process, 50% of respondents in Ontario, 48% of respondents in British Columbia, and 40% of respondents in Quebec cited a lack of transparency as a deterrent to investment. In contrast, only 9% of respondents in Sweden and Western Australia saw the level of transparency as a deterrent to investment. This is an area where many Canadian jurisdictions performed poorly compared to their counterparts in the United States, Australia, and Scandinavia.

As with transparency, a number of the jurisdictions in the United States, Australia, and Scandinavia outperformed many of the Canadian jurisdictions in providing confidence that the necessary permits would be granted. On this measure, Quebec and Ontario perform better than British Columbia, and Western Australia performs better than all three

jurisdictions. Specifically, in Quebec and Ontario, 90% and 88% of respondents indicated that they were either highly confident or confident that they would receive the necessary permits, compared to 73% in British Columbia.

Based on the evidence from the survey, many Canadian jurisdictions are lagging behind their international competitors for increases in the time to permit approval, transparency, and confidence that permits will be granted. As a result, Canada's provinces and territories certainly have room to improve their exploration permitting processes. Policy reform in these areas may help Canada's provinces and territories unlock their considerable mineral potential.

# Introduction

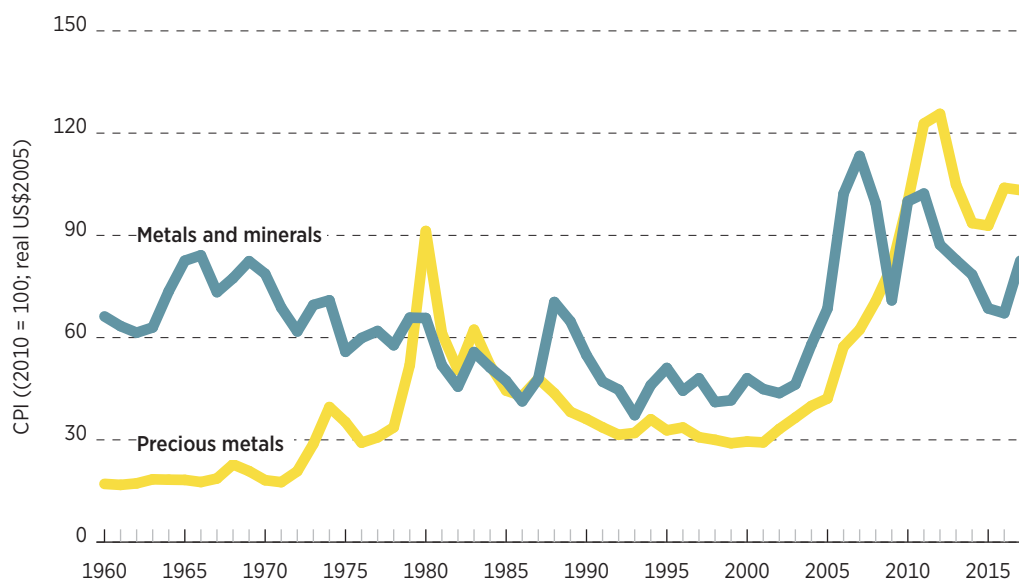
A well-developed mining sector is one that can produce considerable economic and community benefits. In Canada—home to one of the world’s largest mining sectors—mineral exports amounted to \$88.6 billion in 2016, and in the same year, Canada’s mining industry spent \$8.8 billion on capital investment, and contributed \$64.4 billion to nominal GDP. All this, while employing 403,000 workers and paying a yearly average of \$2.6 billion in corporate income taxes and royalties to government revenues (NRCAN, 2018). The economic benefits from mining are well known, and many jurisdictions eagerly seek to pursue policies that encourage investment. But, as with many private-sector activities, the mining sector is competitive and capital is mobile. To encourage investment in mining jurisdictions, governments need to put forth attractive and competitive policies.

This is particularly true for the exploration component of mining. Without exploration activities, the eventual development and extraction of minerals would not take place. Exploration is the process of gathering information and discovering deposits suitable for mining. The task is complex and can involve the use of geological studies of the area, sometimes conducted by aircraft and satellites, to search for above ground deposits and geochemical anomalies (Rankin, 2011; Moon, Whateley, and Evans, 2006). In Canada, exploration is undertaken primarily by major mining companies (who tend to focus on “brownfields” exploration near existing mine-sites) as well as junior exploration companies, who usually hope to sell their discoveries to larger companies that will develop and administer a producing mine.

Exploration comes with considerable risk. To put this risk into perspective, one rough evaluation holds that “[i]t sometimes ... takes 500–1,000 grassroots exploration projects to identify 100 targets for advanced exploration, which in turn lead to 10 development projects, [one] of which becomes a profitable mine” (Eggert, 2010: 4). Another general statistic is that the success rate for exploration is less than a tenth of a percent (Moon, Whateley, and Evans, 2006). In such a risky environment, particularly when commodity prices are just starting to recover and the market is uncertain, as it continues to be (**figure 1**), onerous costs and uncompetitive policies can discourage investment in exploration endeavours, thereby diminishing the chances that a viable deposit will be found and eventually developed into a producing mine.

Some recent evidence suggests that the permitting processes for exploration activities may be imposing such costs and acting as a deterrent to investment. In a recent survey of 34 junior and mid-tier mining firms operating all around the world, conducted between May and August 2015, slow permit approvals and misaligned permit renewals were seen as being

Figure 1: Commodity Price Index (2010 = 100; real US\$2010) for precious metals and metals and minerals, 1960–2017



Source: World Bank, 2017.

one of the greatest challenges facing firms (PDAC, 2015). In Canada, concerns have also been raised about the consistency and transparency of the permitting process for explorers and the effect this may have on the ability of jurisdictions to attract exploration investment (AME BC, 2016a, 2016b). Previous editions of *Permit Times for Mining Exploration* also indicated that the permitting process for mineral exploration activities may be becoming more onerous for firms (Green and Jackson, 2017). Indeed, past editions found that a large percentage of respondents were waiting longer to receive the permits necessary to carry out exploration activities compared to 10 years before.

This year's report continues and extends the work of the previous year's survey. It is again an early contribution to attempting to assess the exploration permitting process and its possible effects. As with the previous report, a survey of mining executives who have recently applied for exploration permits in Canada's provinces and territories, as well as in a number of jurisdictions around the world, was undertaken to get a better understanding of how timelines for permit approval, transparency, and other issues in the permit approval process differ within Canada. The results of this survey will allow for a better understanding of how provinces and territories perform in this area and will serve as a starting point for future research aimed at identifying best practices for exploration permitting. This year's survey adds further data for future research by including a number of additional jurisdictions in Australia, the United States, and Scandinavia to the report, all regions where mining, environmental, and other policies are broadly comparable to those in Canada. This will help gauge Canada's performance in comparison to a number of similar jurisdictions.



## Permits, Competitiveness, and Investment

After a claim has been staked and before exploration activities can begin in Canada's provinces and territories, firms must apply for the necessary regulatory approvals such as permits, licences, and notices of work.<sup>1</sup> These permits allow an exploration or prospecting firm to explore for mineral deposits and perhaps eventually make a discovery. The permits are also intended to ensure that activities will not pose a significant or unnecessary threat to the environment, and to allow for consultation with Aboriginal communities about a possible impact on their rights.

The permitting process places costs on firms, as they must invest time and resources to comply with the permit's requirements. These costs can increase if the process lacks transparency or is uncertain, adding additional risk for firms and reducing a jurisdiction's competitiveness. In an environment where capital is highly mobile, jurisdictions offering lower costs and more competitive policies would be expected to appear more attractive to investment. And policies do matter when it comes to attracting investment and developing mineral resources (David and Wright, 1997). Respondents to the *Fraser Institute Annual Survey of Mining Companies* consistently report that about 60% of their decision to invest comes from a jurisdiction's mineral potential, while the other 40% comes from policy-related factors (Stedman and Green, 2018).

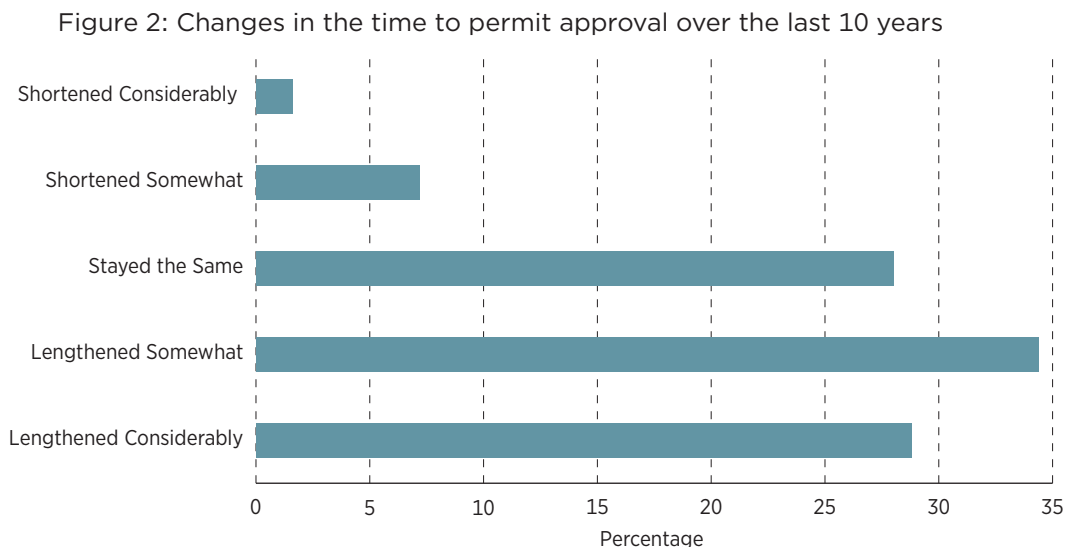
Competitive policies are those that pose low costs on firms while effectively addressing "externalities", concerns that are not fully captured in the direct costs and benefits of a project, such as environmental responsibility (Tilton, 1992). When policies are unclear and uncertain they can increase the compliance costs for firms wishing to explore. Thus, jurisdictions that keep costs low give themselves a competitive advantage in attracting investment.

Permits, particularly for exploration, are an area of mining policy that has received little attention in either the policy and academic literature. One recent study noted that permits can increase the "time, costs, and risks" associated with mining, possibly leading to lower levels of investment and lost economic opportunities (Söderholm et al., 2015: 130). Another study found that, while permits can cause delays and increase uncertainty, responses to a survey by Australian and Canadian mining executives suggest that this does not always mean that they impede investment. A much larger percentage of Canadian executives noted that environmental permits and assessments acted as a deterrent to investment than did their Australian counterparts, suggesting that perhaps policies in Canada are imposing large costs on firms (Annandale and Taplin, 2003).

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1. The name or type of permit needed varies greatly among the provinces and territories. "Permit" will be used as a general term for the varieties of different requirements in each province and territory.

Wilson, McMahon, and Minardi point out that regulations (*i.e.*, permits) can affect the allocation of mining investment by contributing to inconsistency in decisions and a lengthy regulatory process. The authors state that, “[w]here the process is unclear, fluctuating, or subject to change, miners may be reluctant to invest due to additional costs, regulatory requirements, or new processes that can significantly add costs and delays to projects” (2013: 23). In addition, beyond costs and delays, uncertain regulations also add additional risks to potential projects. Indeed, recent evidence suggests that permitting processes may be placing higher costs and uncertainty on the exploration industry. In the previous edition of this report, respondents around the world were asked to assess the extent to which the time it takes to get a permit approved has changed over the last ten years. Last year, nearly 40% of respondents indicated that the time for permit approval has increased from what it was ten years ago for Canadian jurisdictions (Jackson and Green, 2017). In this year’s survey, that number increased: 53% of respondents indicated that the time lengthened over the previous ten years (**figure 2**).



Source: Stedman and Green, 2018.

To be clear, this section does not suggest that regulations should simply be lessened in order to reduce the risks and costs to industry; rather it argues that regulations should be as efficient and cost effective as possible while trying to address concerns like externalities that can result from exploration activities. Concern arises from regulations that are uncertain or lacking transparency as this is what for the most part adds the risks and costs that can deter investment. This point is underscored by recent research that found that clarity and stability in environmental regulations played a greater role than stringency when multinational corporations choose countries in which to invest (Rivera and Hoon Oh, 2013).

# Miners' Perceptions of Regulation in Canada

The Fraser Institute mining survey<sup>2</sup> examines the extent to which uncertainty in three areas of regulation acts as possible deterrents to investment in jurisdictions in Canada, the United States, Australia, and Scandinavia:

- 1 the administration, interpretation, and enforcement of existing regulations;
- 2 environmental regulations;
- 3 regulatory duplication and inconsistencies (includes federal/provincial, federal/state, inter-departmental overlap, etc.)

The answers to these three questions indicate that regulation is one of the top barriers to investment in Canada (**figure 3**).<sup>3</sup> Despite some slight decreases in recent years, investors have perceived these barriers to be generally increasing over the last decade.

For example, as seen in **figure 4**, the median percentage of respondents who viewed uncertainty in the administration, interpretation, and enforcement of existing regulations as a deterrent to investment in Canada increased sharply from 16% in 2010 to 33% in 2014. From 2015 to 2016, miners indicated that uncertainty in this area was becoming less of a deterrent to investment: concern about this area fell from 33% in 2014 to 29% in 2015 and 24% in 2016. However, in 2017, the median percentage of miners indicating that uncertainty in this area was a deterrent to investment increased to 27%.

The deterrent effect that uncertainty concerning environmental regulations has on investment, has in general been on an upward trend. The low point in the previous decade for this measure was in 2009, when the median percentage of Canadian respondents who indicated that uncertainty concerning environmental regulations was a deterrent to investment sat at 22%. In 2017, the median percentage of respondent indicating that this measure was a deterrent to investment was 32% (**figure 5**).

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2. Respondents to the Survey of Mining Companies evaluate jurisdictions on 15 policy variables that aim to capture whether policy related areas such as taxation, regulation, land use, security, and so on either attract or deter investment. Respondents also assess the pure mineral potential of each jurisdiction. For more on the specifics of the survey and its methodology, see Stedman and Green, 2018.

3. The Survey of Mining Companies examines nine Canadian provinces and two territories (Prince Edward Island is excluded). To analyze broader Canadian trends, the median score of the 12 Canadian provinces and territories is used.

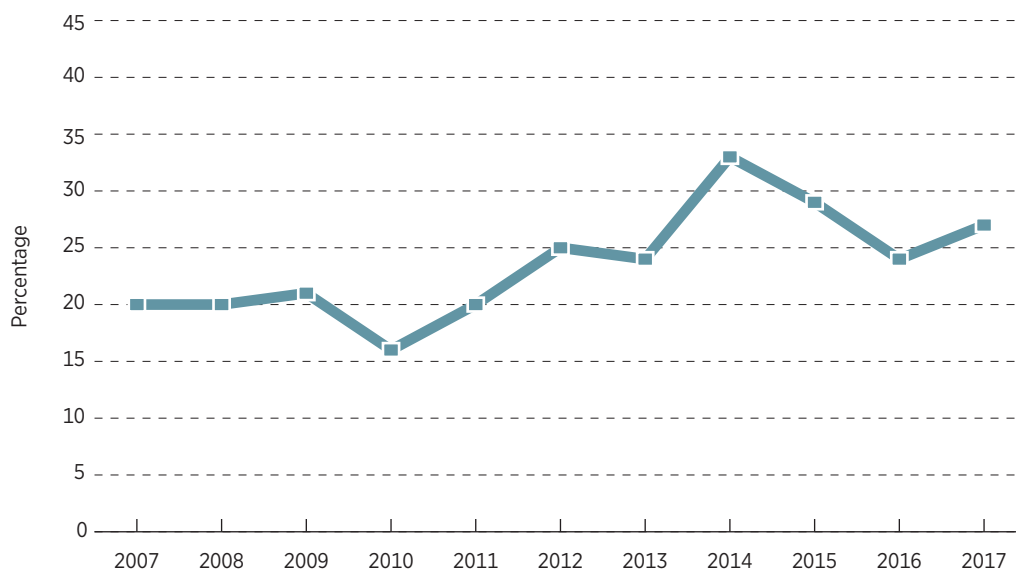
Figure 3: Barriers to investment in Canada—median scores for deterrents to investment, 2017



Source: Stedman and Green, 2018.

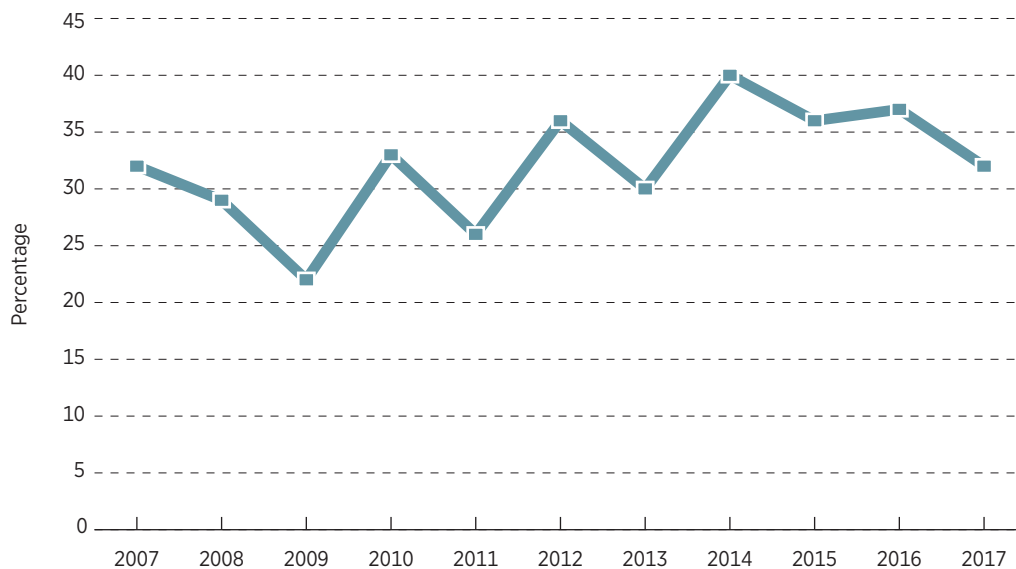
Of the three regulatory measures, regulatory duplication and inconsistency is the one that appears to be having the greatest negative effect on investment attractiveness, and the situation has been deteriorating (**figure 6**). After reaching a low in 2007 of a median Canadian response of 23% of respondents viewing regulatory duplication and inconsistencies as a deterrent to investment, that percentage has risen to 38% in 2017. Although this is a decrease from 44% deterred in 2016, the percentage of respondents indicating this area is a deterrent to investment is still substantially above 2007 results.

Figure 4: Median percentage of Canadian respondents who indicated that uncertainty about the administration, interpretation, and enforcement of existing regulations was a deterrent to investment, 2007-2017



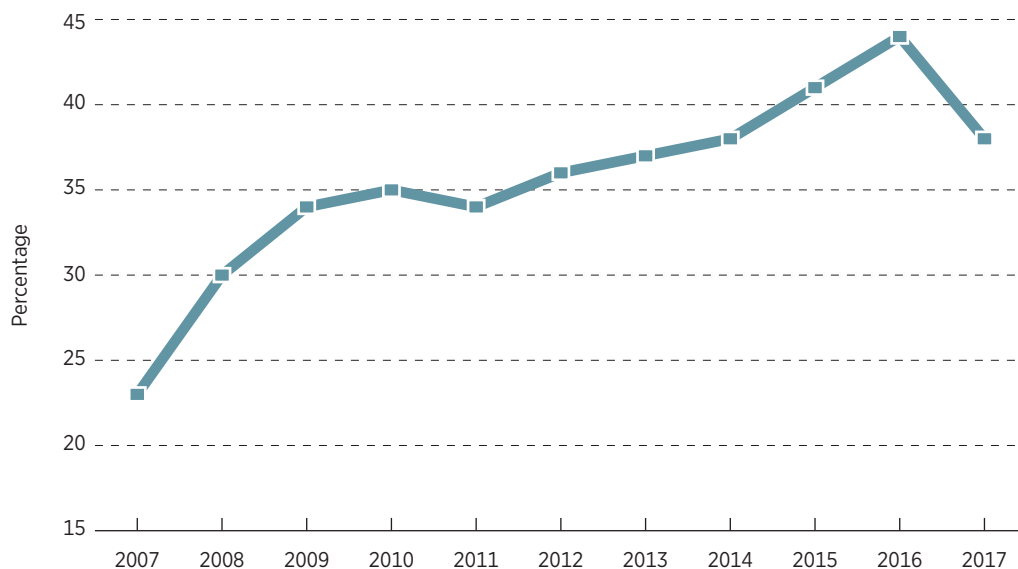
Source: Various authors, 2007/2008-2017, *Fraser Institute Annual Survey of Mining Companies*.

Figure 5: Median percentage of Canadian respondents who indicated that uncertainty about environmental regulations was a deterrent to investment, 2007-2017



Source: Various authors, 2007/2008-2017, *Fraser Institute Annual Survey of Mining Companies*.

Figure 6: Median percentage of Canadian respondents who indicated that regulatory duplication and inconsistencies were a deterrent to investment, 2007–2017



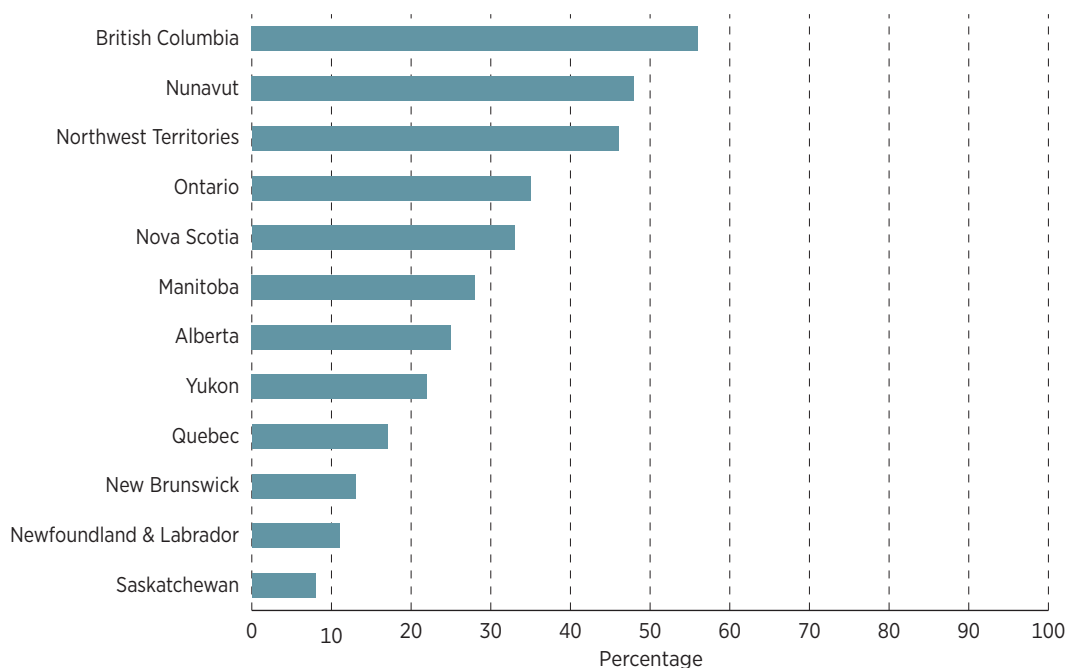
Source: Various authors, 2007/2008–2017, *Fraser Institute Annual Survey of Mining Companies*.

This concern appears to be greatest in British Columbia, the Northwest Territories, Nova Scotia, Nunavut, and Ontario. In 2017, 56% of respondents for British Columbia, 48% of respondents in the Nunavut, and 46% of respondents in the Northwest Territories viewed uncertainty about the administration, interpretation, and enforcement of existing regulations as presenting some form of a deterrent to investment (**figure 7**).

The deterrent on investment from uncertainty about environmental regulations varies considerably across Canada (**figure 8**). For example, in British Columbia and Nunavut, the Canadian jurisdictions where this is of greatest concern, 65% of respondents indicated that uncertainty in this area was deterring investment. On the other hand, only 14% of respondents in New Brunswick and 23% in Quebec indicated that uncertainty from environmental regulations was a deterrent to investment. In addition, investors also indicated considerable concern about this issue in the Northwest Territories, where 54% of respondents for both jurisdictions indicated that uncertainty in this area was a deterrent to investment.

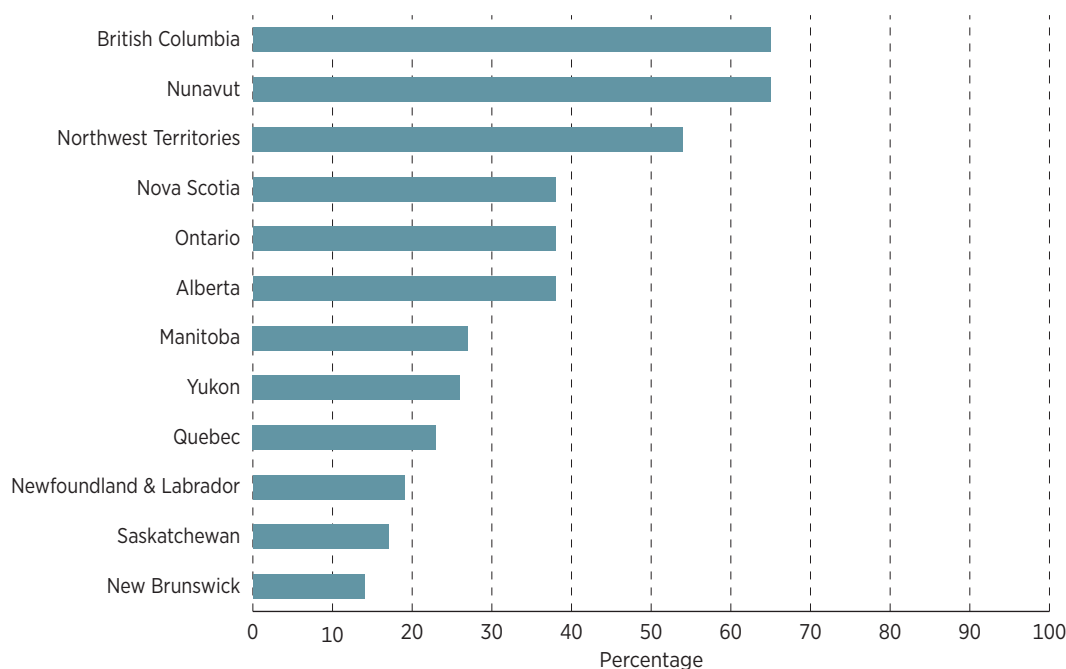
Regulatory duplication and inconsistency are cause for a concern that is widely dispersed amongst Canada's provinces and territories (**figure 9**). Nunavut is the jurisdiction in Canada with the highest percentage of respondents—59%—who indicated that regulatory duplication and inconsistency were a deterrent to investment, at 59%. British Columbia also has over 50% of respondents indicating regulatory duplication and inconsistency to be a deterrent to investment. While the gap between top and bottom in Canada is still large, the Canadian jurisdiction that performs the best in this area—Saskatchewan—still has 17% of respondents who indicated that this type of regulatory issue is a deterrent to investment.

Figure 7: Percentage of respondents who indicated that uncertainty about the administration, interpretation, and enforcement of existing regulations is a deterrent to investment in Canada, by province and territory, 2017



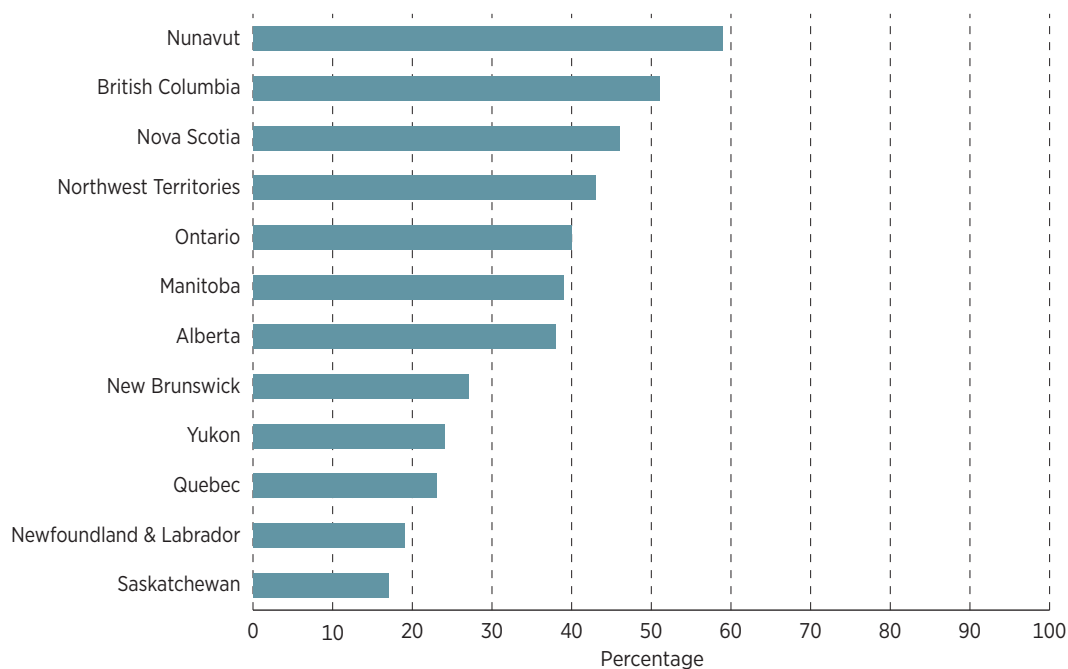
Source: Stedman and Green, 2018.

Figure 8: Percentage of respondents who indicated that uncertainty about environmental regulations is a deterrent to investment in Canada, by province and territory, 2017



Source: Stedman and Green, 2018.

Figure 9: Percentage of respondents who indicated that regulatory duplication and inconsistency are a deterrent to investment in Canada, by province and territory, 2017



Source: Stedman and Green, 2018.

The growing concern about the uncertainty posed by regulatory policies in Canada and the effect that such uncertainty and costs can have on a jurisdiction's attractiveness to investment serves as the continued impetus for trying to measure how costs and uncertainty in the permitting process varies between Canada's provinces and territories and similar jurisdictions around the world.



## Design of the Survey

To assess how time, transparency, and (un)certainty in the process of obtaining exploration permits differs among Canada's provinces and territories and similar jurisdictions around the world, we added questions for mining executives about permit times within the broader *Fraser Institute Annual Survey of Mining Companies 2017* (Stedman and Green, 2018). The survey is designed to identify the jurisdictions that have the most attractive permitting policies, which can help to encourage and retain investment in mining exploration. Jurisdictions assessed by investors as relatively unattractive may therefore be prompted to consider reforms that could lead to their attracting more exploration investment.

The broader *Fraser Institute Annual Survey of Mining Companies 2017*, of which the survey on Canadian exploration permits was a subsection, was sent to approximately 2,700 managers and executives in companies around the world involved in mining exploration, development, and other related activities. To ensure that only individuals with knowledge of mining exploration in the regions included in the exploration permit survey answered the permit-time component of the *Survey*, only those individuals who provided responses for Canada, the United States, Australia, and Scandinavia in the broader survey were allowed access to the survey on exploration permits. This resulted in approximately 244 eligible respondents. However, only respondents who had applied for an exploration permit, license, notice of work, or similar document within the last two years were asked to respond to the survey to ensure that only those with the most recent and relevant experience were answering the questions; as a result, 160 executives and managers answered the permit-time component of the *Survey*. Only jurisdictions that had a minimum of five responses were included in the exploration permits study. **Table 1** shows those jurisdictions that met this criteria. Jurisdictions with between 5 and 9 responses have been noted in subsequent tables to indicate that results for these jurisdictions are likely not as robust as those for jurisdictions with 10 or more responses.

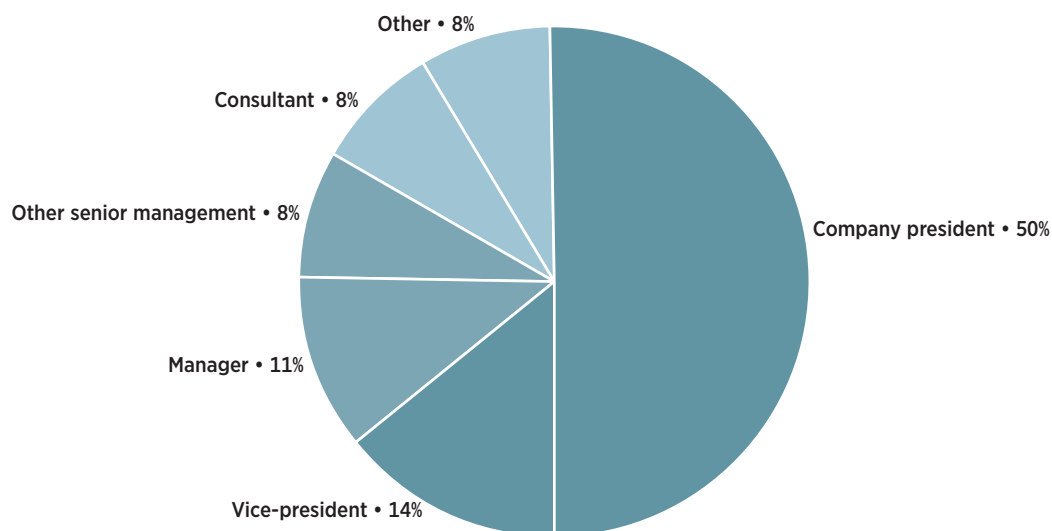
Table 1: Jurisdictions discussed

Canada	United States	Australia	Scandinavia
<i>British Columbia</i>	<i>Alaska</i>	<i>New South Wales</i>	<i>Finland*</i>
<i>Manitoba*</i>	<i>Arizona*</i>	<i>Northern Territory*</i>	<i>Sweden</i>
<i>Newfoundland &amp; Labrador*</i>	<i>Colorado*</i>	<i>Queensland</i>	
<i>Northwest Territories*</i>	<i>Idaho*</i>	<i>South Australia*</i>	
<i>Nunavut*</i>	<i>Montana*</i>	<i>Western Australia</i>	
<i>Ontario</i>	<i>Nevada</i>		
<i>Quebec</i>	<i>Utah*</i>		
<i>Saskatchewan*</i>			
<i>Yukon</i>			

Note: \* indicates between 5 and 9 responses.

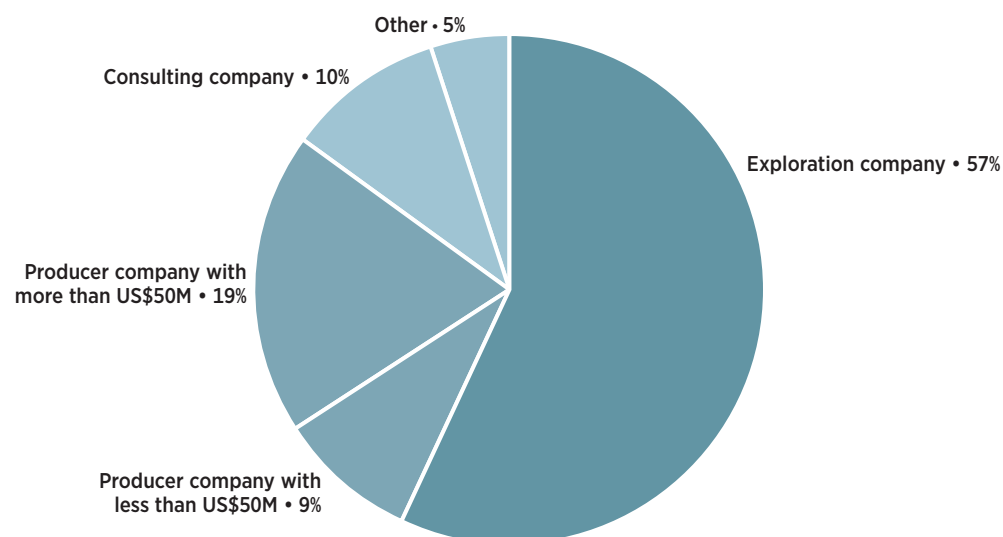
Half of respondents to the Canadian permit-time component of the *Annual Survey of Mining Companies* were company presidents. A further 25% of respondents were either company vice-presidents or managers (**figure 10**). The majority of respondents, 57%, were from exploration companies. An additional 28% of responses came from producer companies that are also involved in exploration activities (**figure 11**).

Figure 10: Positions held by survey respondents



Source: Stedman and Green, 2018.

Figure 11: Focus of companies as indicated by survey respondents



Source: Stedman and Green, 2018.

## Survey Questionnaire

The survey is designed to capture the experiences of executives and others involved in exploration activities in selected jurisdictions around the world. This will provide valuable insights into the differences among jurisdictions in Canada, the United States, Australia, and Scandinavia in the time, cost, and uncertainty that exist in the process of granting exploration permits. Respondents were asked to answer five questions.

1. Approximately how much TIME do you expect to spend getting the permits, licences, or notices of work, etc. to conduct exploration activities in each jurisdiction? Please estimate from the time you apply at the first stage of the approval process until the initiation of exploration activities.
  - a. 2 months or less
  - b. 3 to 6 months
  - c. 7 to 10 months
  - d. 11 to 14 months
  - e. 15 to 18 months
  - f. 19 to 23 months
  - g. 24 months or more
2. Over the last 10 years, please estimate the amount that your “TIME TO PERMIT APPROVAL” has changed in each jurisdiction?
  - a. Shortened Considerably
  - b. Shortened Somewhat
  - c. Stayed the Same
  - d. Lengthened Somewhat
  - e. Lengthened Considerably
3. Prior to deciding where to explore, all other factors being equal, what level of CONFIDENCE do you have that you will eventually be granted a permit?
  - a. High Confidence
  - b. Confident
  - c. Low Confidence
  - d. Not at all Confident
4. Prior to deciding where to explore, all other factors being equal, how does the level of TRANSPARENCY in the permitting process affect exploration in each jurisdiction?
  - a. Encourages exploration investment
  - b. Not a deterrent to exploration investment
  - c. Is a mild deterrent to exploration investment
  - d. Is a strong deterrent to exploration investment
  - e. Would not pursue exploration investment in this province or territory due to this factor
5. Throughout the permitting process, how often did the jurisdiction meet its own established timelines/milestones for permit approval decisions?
  - a. Most of the time (80% to 100%)
  - b. Some of the time (60% to 80%)
  - c. About half the time (40% to 60%)
  - d. Less than half the time (20% to 40%)
  - e. Rarely met own timelines (0% to 20%)

## Results

The results of the survey have been broken into three areas: the length of time it takes to be approved for the necessary permits, the transparency of the permitting process, and the certainty of the permitting process.<sup>4</sup> Jurisdictions with less than five responses were dropped from the analysis and those with between five and nine responses have been noted in all the subsequent tables.

### Time

#### *Length of time to receive permits*

To assess how the length of the permitting process differs among jurisdictions three questions were asked. Question 1 asked respondents to estimate the amount of time that they expected to spend acquiring the necessary permits to conduct exploration activities. Note that these are not permits to develop a mine, but rather permits to explore. In most Canadian provinces and territories, the majority of respondents said they were able to acquire the necessary exploration permits within six months. However, there are some notable differences among the provinces and territories (**table 2**).

#### Canada

Many of Canada's territories and provinces have poor results for the amount of time required for respondents to receive necessary permits. In the Northwest Territories, 14%, and in Nunavut, none, of the respondents were able to acquire the necessary permits for exploration in two months or less. The Yukon performs slightly better on this measure, as 29% of respondents indicated that they were able to acquire the necessary permits for exploration in two months or less. The pan-Canadian average for this measure is 39%.

Nunavut has the lowest percentage of respondents, 14%, who acquired permits in six months or less. Yukon, where 86% of respondents indicated that they received their necessary permits in less than six months, performs better than the Northwest Territories, where 57% indicated that this was the case. Overall, Canada's territories compare poorly in granting permits in a timely manner with provinces like Ontario and Quebec, which attract exploration investment for similar types of commodities. For example, 71% of respondents in Ontario, and 85% in Quebec, acquired the necessary permits for exploration in six months or less.

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4. When comparing the results for the Canadian jurisdictions in the 2016 report with this year's, year-over-year results varied depending on the measure being examined.

Table 2: Various lengths of time (months) respondents expected to spend acquiring permits, licences, notices of work, or other documents to conduct exploration activities

	2 months or less	3–6 months	7–10 months	11–14 months	15–18 months	19–23 months	24 months or more
Canada							
<i>British Columbia</i>	18%	42%	24%	9%	3%	0%	3%
<i>Manitoba*</i>	56%	22%	0%	0%	0%	0%	22%
<i>Newfoundland &amp; Labrador*</i>	100%	0%	0%	0%	0%	0%	0%
<i>Northwest Territories*</i>	14%	43%	43%	0%	0%	0%	0%
<i>Nunavut*</i>	0%	14%	43%	43%	0%	0%	0%
<i>Ontario</i>	42%	29%	4%	13%	4%	0%	8%
<i>Quebec</i>	40%	45%	5%	0%	0%	0%	10%
<i>Saskatchewan*</i>	50%	33%	0%	0%	17%	0%	0%
<i>Yukon</i>	29%	57%	7%	0%	0%	0%	7%
United States							
<i>Alaska</i>	45%	36%	9%	0%	9%	0%	0%
<i>Arizona*</i>	22%	22%	0%	11%	11%	11%	22%
<i>Colorado*</i>	0%	67%	0%	0%	33%	0%	0%
<i>Idaho*</i>	17%	17%	0%	17%	17%	0%	33%
<i>Montana*</i>	20%	40%	0%	0%	20%	20%	0%
<i>Nevada</i>	29%	38%	10%	0%	14%	0%	10%
<i>Utah*</i>	38%	25%	0%	0%	25%	0%	13%
Australia							
<i>New South Wales</i>	0%	41%	14%	5%	9%	0%	32%
<i>Northern Territory*</i>	0%	17%	33%	0%	17%	17%	17%
<i>Queensland</i>	29%	18%	12%	18%	18%	6%	0%
<i>South Australia*</i>	11%	33%	22%	11%	11%	11%	0%
<i>Western Australia</i>	17%	48%	17%	9%	9%	0%	0%
Scandinavia							
<i>Finland*</i>	17%	17%	33%	17%	0%	17%	0%
<i>Sweden</i>	36%	27%	18%	9%	0%	0%	9%

Note: \* indicates between 5 and 9 responses.

Amongst the three provinces, British Columbia, Ontario, and Quebec—which attract the majority of Canadian exploration spending on base metals and precious metals—the results are somewhat mixed. For example, Ontario (42%) and Quebec (40%) had much higher percentages of respondents indicating that they expected it to take two months or less to acquire the necessary exploration permits. However, in British Columbia, only 18% of respondents were able to acquire the necessary permits for exploration in two months or less; and British Columbia also underperforms compared to its main competitors in Canada for longer periods of time, having the lowest percentage of respondents (61%) among the three provinces who indicated that they expected to spend six months or less acquiring the necessary permits. Indeed, among British Columbia, Ontario, and Quebec, it is British Columbia’s results that are the most concerning: 39% of respondents for British Columbia indicated that they expected to spend more than 6 months to get their exploration permits, compared to 29% in Ontario and only 15% in Quebec.

### **United States**

In the United States, Alaska is the jurisdiction with the highest percentage of respondents (45%) who indicated that they were able to attain their necessary permits in two months or less. Compared to Arizona, Colorado, Idaho, Nevada, and Utah, the other US states included in the analysis, Alaska also performed best for providing necessary permits in six months or less: it had the highest percentage of respondents (82%) who indicated that they received their necessary permits within this time limit. The poorest performing of the seven American jurisdiction included in the analysis was Idaho, where only 17% of respondents received their permits in less than two months or less; and only 33% received them in 6 months or less.

### **Australia**

In Australia, out of the five jurisdictions included in this analysis, two—New South Wales and Northern Territory—had no respondents indicate that they were able to receive their permits within two months or less. In fact, of the 23 jurisdictions included in the survey, only two other jurisdictions—Nunavut and Colorado—had no respondents indicating that they received their permits in two months or less. The Australian jurisdiction that performed the best on this measure was Queensland, where 29% of respondents indicated that they received their permits in two months or less. However, Western Australia had a higher percentage of respondents indicating that they received their permits in 6 months or less than did Queensland.

When compared to Canada, most of Australia performed relatively poorly for timely permitting of exploration. Of particular concern for Australia are the sizable percentages of respondents in a few of the Australian states that indicated that it was taking 15 months or more to receive their permits. For example, in Northern Territory 50%, and in New South Wales, 41%, of respondents indicated that it took longer than 15 months to receive their permits.

## Scandinavia

This year, once again, we only received enough responses to include Finland and Sweden in this report (Norway was excluded). Based on responses to the survey, it appears that Sweden was able to grant permits faster than Finland. In Sweden, 36% of respondents indicated that they received their permits in two months or less and 64% reported receiving them in six months or less. This compares to 17% and 33% in Finland. In particular, Finland has a relatively high percentage of respondents—17% compared to 9% in Sweden—indicating that it took 15 months or more to receive their permits.

## Overall

When comparing the four regions included in the survey—Canada, the United States, Australia, and Scandinavia—Canadian jurisdictions on average have a higher percentage of respondents indicating that they receive their permits in six months or less. This average was 71% amongst Canadian jurisdictions, 59% amongst the US jurisdictions, 43% amongst the Australian jurisdictions, and 48% for the two Scandinavian countries.

## *Changes over time*

We also sought to assess how the times explorers expected to spend attaining permit approval had changed over the last ten years.

## Canada

The results, in general, indicate that permit approval times are lengthening in Canada. In seven out of nine provinces and territories included (British Columbia, Manitoba, Northwest Territories, Nunavut, Ontario, Quebec, and Yukon), 50% of respondents or more said that the time to permit approval had lengthened over the last 10 years. In two cases—Newfoundland & Labrador and Saskatchewan—the majority of respondents indicated that permit approval times had shortened or stayed the same (**table 3**).

Overall, two Canadian provinces, Newfoundland & Labrador and Saskatchewan, had the no respondents indicating that the time to permit approval had either lengthened somewhat or lengthened considerably. Of the three provinces attracting the bulk of Canada's exploration spending discussed above, Ontario had the highest percentage of respondents (83%) indicating that the time to permit approval had either lengthened somewhat or lengthened considerably, compared to 73% in British Columbia and 50% in Quebec. Of these provinces, British Columbia had the highest percentage of respondents (45%) indicating that the time to permit approval had lengthened considerably. Nunavut had the highest percentage of respondents (57%) of any jurisdiction included in this analysis who indicated that the time to permit approval had lengthened considerably.

Table 3: Percentages of respondents reporting various changes in the length of time to permit approval over past 10 years

	Shortened considerably	Shortened somewhat	Stayed the same	Lengthened somewhat	Lengthened considerably
Canada					
<i>British Columbia</i>	0%	6%	21%	27%	45%
<i>Manitoba*</i>	11%	11%	22%	22%	33%
<i>Newfoundland &amp; Labrador*</i>	0%	40%	60%	0%	0%
<i>Northwest Territories*</i>	0%	14%	14%	57%	14%
<i>Nunavut*</i>	0%	0%	29%	14%	57%
<i>Ontario</i>	0%	4%	13%	67%	17%
<i>Quebec</i>	0%	0%	50%	30%	20%
<i>Saskatchewan*</i>	0%	33%	67%	0%	0%
<i>Yukon</i>	7%	0%	21%	36%	36%
United States					
<i>Alaska</i>	8%	8%	25%	58%	0%
<i>Arizona*</i>	11%	11%	22%	22%	33%
<i>Colorado*</i>	0%	33%	0%	67%	0%
<i>Idaho*</i>	0%	0%	14%	71%	14%
<i>Montana*</i>	0%	0%	20%	60%	20%
<i>Nevada</i>	0%	10%	33%	38%	19%
<i>Utah*</i>	13%	13%	25%	25%	25%
Australia					
<i>New South Wales</i>	0%	9%	27%	14%	50%
<i>Northern Territory*</i>	0%	0%	33%	50%	17%
<i>Queensland</i>	0%	29%	41%	24%	6%
<i>South Australia*</i>	0%	11%	33%	11%	44%
<i>Western Australia</i>	9%	14%	50%	18%	9%
Scandinavia					
<i>Finland*</i>	0%	33%	17%	50%	0%
<i>Sweden</i>	9%	0%	36%	45%	9%

Note: \* indicates between 5 and 9 responses.



In addition, compared to last year's results, the percentage of respondents indicating that permit approval times have lengthened over the last ten years increased in British Columbia, Ontario, and Quebec (Green and Jackson, 2017). Indeed, it appears that many of the Canadian jurisdictions included could benefit from stemming or reducing lengthening exploration permit times.

### **United States**

In all of the US states, at least 50% of respondents indicate that time to permit approval had lengthened. In particular, Arizona saw 33% of respondents indicate that the time to permit approval had lengthened considerably.

### **Australia**

The results for Australia indicate views on time to permits approval varies across jurisdictions. Indeed, three of the five Australian jurisdictions had more than 50% of respondents indicate that the time to permit approval had either lengthened somewhat or considerably. Western Australia performed the best in the country on this measure, with only 27% of respondents indicating that the time to permit approval had lengthened in some way.

### **Scandinavia**

The results for Scandinavia are consistent. For Finland, 50% of respondents indicated that the time to permit approval had either lengthened somewhat or considerably. This compares to 55% of respondents for Sweden.

### **Overall**

Overall, many Canada jurisdictions are lagging behind other regions for the lengthening of permit approval times over time. The average percentage of respondents in the Canadian jurisdictions indicating that the time to permit approval had either lengthened somewhat or considerably (over the past ten years) was 53%, compared to 65% in the United States, 49% in Australia, and 52% in Scandinavia.

### ***Timeline Certainty***

It is also important to those applying for exploration permits that the permit-granting organizations adhere to advertised timelines. If the organizations do meet the expected milestones—extending the time it takes to get a permit—this can place additional costs and risks on firms and act as a deterrent to investment (**table 4**).

### **Canada**

In Canada, Nunavut (71%), British Columbia (61%), and Manitoba (56%) had the highest percentages of respondents indicating that the permitting authority only met its own established timelines or milestones about half the time or less. Saskatchewan was the top performer in the country for timeline certainty, with 83% of respondents for the province indicating that timelines were met between 80% and 100% of the time.

Table 4: How often did the jurisdiction meet its own established timelines or milestones for permit approval decisions?

	Most of the time (80% to 100%)	Some of the time (60% to 80%)	About half the time (40% to 60%)	Less than half the time (20% to 40%)	Rarely met timelines (0% to 20%)
Canada					
<i>British Columbia</i>	18%	21%	27%	12%	21%
<i>Manitoba*</i>	11%	33%	11%	11%	33%
<i>Newfoundland &amp; Labrador*</i>	80%	20%	0%	0%	0%
<i>Northwest Territories*</i>	43%	43%	0%	0%	14%
<i>Nunavut*</i>	14%	14%	29%	0%	43%
<i>Ontario</i>	46%	21%	13%	13%	8%
<i>Quebec</i>	40%	30%	20%	0%	10%
<i>Saskatchewan*</i>	83%	17%	0%	0%	0%
<i>Yukon</i>	43%	21%	21%	0%	14%
United States					
<i>Alaska</i>	58%	17%	8%	17%	0%
<i>Arizona*</i>	33%	11%	0%	22%	33%
<i>Colorado*</i>	17%	33%	33%	17%	0%
<i>Idaho*</i>	43%	0%	29%	14%	14%
<i>Montana*</i>	40%	20%	20%	20%	0%
<i>Nevada</i>	29%	43%	10%	5%	14%
<i>Utah*</i>	38%	38%	0%	0%	25%
Australia					
<i>New South Wales</i>	9%	27%	14%	27%	23%
<i>Northern Territory*</i>	17%	50%	33%	0%	0%
<i>Queensland</i>	44%	44%	6%	0%	6%
<i>South Australia*</i>	22%	33%	33%	11%	0%
<i>Western Australia</i>	61%	30%	4%	4%	0%
Scandinavia					
<i>Finland*</i>	50%	33%	0%	17%	0%
<i>Sweden</i>	45%	36%	18%	0%	0%

Note: \* indicates between 5 and 9 responses.

## United States

In the United States, the top performing jurisdiction is Alaska, where 58% of respondents indicated that established timelines were met 80% to 100% of the time. The poorest performer on this measure was Colorado, where only 17% of respondents indicated that the state met its own established timelines most of the time. In fact, 50% of respondents for Colorado indicated that the permitting authority met its own established timelines or milestones only about half the time or less.

## Australia

Western Australia was the top performing state in Australia by a wide margin when it comes to meeting established timelines: only 9% of respondents for Western Australia indicated that the permitting authority met its own established timelines or milestones only about half the time or less. This is in stark comparison to New South Wales, where 64% of respondents indicated established timelines were met only about half the time or less and South Australia where 44% said the same. Moreover, 23% of respondents for New South Wales said that timelines were rarely met.

## Scandinavia

Both Finland and Sweden perform well compared to the other jurisdictions in the survey on timeline certainty, with 45% of respondents in Sweden, and 50% in Finland, indicating that timelines for permit-approval decisions were met between 80% and 100% of the time. Contrasting Finland and Sweden's above-average performance on the timeline certainty aspect of the permit process with the previous two measures in this analysis, it appears that, while the two Scandinavian countries offer certain timelines, it takes a comparatively long time to issue the necessary permits in Finland.

## Transparency

Another critical issue in the granting of permits for exploration is transparency. When those prospecting for exploitable mineral deposits do not understand what the rules are or how they are applied, political interference and even corruption can enter the process, with the result that investment may be deterred (**table 5**).

## Canada

In this area, two provinces, Saskatchewan and Newfoundland & Labrador, continue to perform far better than many of the other Canadian provinces and territories included in the study. No respondents in Newfoundland & Labrador and Saskatchewan reported that a lack of transparency in the permitting process was a deterrent to investment, a performance unmatched by any other Canadian jurisdiction.

Table 5: How does the level of transparency in the permitting process affect investment in exploration?

	Encourages investment	Not a deterrent	Mild deterrent	Strong deterrent	Would not invest due to this factor
Canada					
<i>British Columbia</i>	12%	39%	30%	15%	3%
<i>Manitoba*</i>	22%	11%	22%	22%	22%
<i>Newfoundland &amp; Labrador*</i>	20%	80%	0%	0%	0%
<i>Northwest Territories*</i>	14%	29%	14%	43%	0%
<i>Nunavut*</i>	14%	29%	0%	43%	14%
<i>Ontario</i>	29%	21%	42%	4%	4%
<i>Quebec</i>	45%	15%	25%	10%	5%
<i>Saskatchewan*</i>	67%	33%	0%	0%	0%
<i>Yukon</i>	21%	36%	36%	7%	0%
United States					
<i>Alaska</i>	25%	50%	25%	0%	0%
<i>Arizona*</i>	33%	22%	33%	11%	0%
<i>Colorado*</i>	0%	50%	33%	17%	0%
<i>Idaho*</i>	29%	14%	43%	14%	0%
<i>Montana*</i>	40%	20%	20%	20%	0%
<i>Nevada</i>	38%	29%	29%	5%	0%
<i>Utah*</i>	75%	0%	13%	0%	13%
Australia					
<i>New South Wales</i>	5%	18%	36%	32%	9%
<i>Northern Territory*</i>	50%	17%	17%	17%	0%
<i>Queensland</i>	41%	41%	18%	0%	0%
<i>South Australia*</i>	33%	44%	22%	0%	0%
<i>Western Australia</i>	48%	43%	9%	0%	0%
Scandinavia					
<i>Finland*</i>	50%	33%	0%	17%	0%
<i>Sweden</i>	27%	64%	9%	0%	0%

Note: \* indicates between 5 and 9 responses.

Out of the three territories, Yukon's process was judged more transparent than that of the Northwest Territories or Nunavut: 43% of respondents for the Yukon indicated that a lack of transparency was a deterrent to investment. The feedback was worse for the Northwest Territories and Nunavut. In fact, these jurisdictions had the highest percentage of respondents reporting that transparency in the exploration permit process was a strong deterrent to investment or greater at 57% for both Northwest Territories and Nunavut.

Amongst the three provinces that attract the majority of Canadian exploration spending, Quebec performed the best with 40% of respondents indicating that a lack of transparency in the exploration permitting process was a deterrent to investment, followed by British Columbia at 48%, and Ontario at 50%. This is an area where many Canadian jurisdictions performed poorly compared to their counterparts in Australia and Scandinavia.

### **United States**

In this category, Alaska and Utah were the top performers in the United States, with 25% of respondents indicating that the level of transparency was deterring investment. Nevada also performed relatively well with 33% of respondents signalling that transparency was a deterrent for investment. When compared directly to Alaska, Utah had a greater percentage of respondents stating that the level of transparency in the state was actually an encouragement to investment at 75%. Idaho performed the worst in the United States, with 57% of respondents saying that the level of transparency was acting as a deterrent to investment.

### **Australia**

New South Wales had 77% of respondents indicate that the level of transparency in the jurisdiction was a deterrent to investment. However, the other jurisdictions performed comparatively well on this measure. In particular, Western Australia was the top performer as only 9% of respondents said that the level of transparency was a deterrent to investment.

### **Scandinavia**

Finland and Sweden perform well in the analysis of the effect that the level of transparency in the permitting process has on deterring investment. Seventeen percent of respondents for Finland said that a lack of transparency was deterring investment and only 9% of respondents in Sweden indicated that this was the case.

### **Overall**

Canada performed poorly when it comes to transparency. For example, seven out of the nine (23 jurisdictions in total) jurisdictions in the survey had 40% or more respondents indicate that the level of transparency in the permitting process was a deterrent to investment. Indeed, the average percentage of respondents in Canadian jurisdictions indicating that a lack of transparency was a deterrent to investment was 40%. This compares to an average of 32% in Australia, 39% in the United States, 9% in Sweden, and 17% in Finland.

## Confidence

Another area on which we sought feedback was the confidence of respondents that they would eventually be granted a permit. If firms are not confident that they will be able to acquire the necessary permits to carry out exploration activities once they have met regulatory requirements, it is less likely that they will consider investing in the given jurisdiction (**table 6**).

### Canada

When asked about how confident they were that the necessary permits will eventually be granted, respondents rated many Canadian jurisdictions as lagging behind other regions. However, Saskatchewan performed the best as all respondents were highly confident or confident they would be granted the necessary permits. Specifically, 83% of respondents for the province reported that they were highly confident that they will receive their permits, with an additional 17% saying that they were confident. In Newfoundland & Labrador, all respondents were confident or highly confident that they would be granted the necessary permits. In Quebec, 90% of respondents, and in Ontario, 88%, indicated that they were either highly confident or confident that they would receive the necessary permits, compared to 73% in British Columbia. Manitoba and Nunavut had less than 60% of respondents indicating that they were highly confident or confident that they would be granted the necessary permits.

### United States

One US jurisdiction—Idaho—had all respondents report that they were either highly confident or confident that they would receive their necessary permits. Over 90% of respondents for Alaska and Nevada also indicated that they were confident or highly confident that they would receive their necessary permits.

### Australia

Two Australian jurisdictions—Queensland and Western Australia—performed quite well for confidence in the permitting process, with 100% of respondents indicating that they were either highly confident or confident that they would receive their permits. South Australia also performs well, with 89% of respondents indicating that they were confident or highly confident that they would receive their permits. New South Wales and Northern Territory were the only two Australian states with less than 80% of respondents in the positive categories, which demonstrates a need for improvement.

### Scandinavia

Respondents for Finland (100%) and Sweden (91%) indicate that they have a very high degree of confidence that they will receive their permits.

Table 6: How confident were respondents that they would eventually be granted the necessary permit(s)?

	Not at all confident	Low confidence	Confident	High confidence
Canada				
<i>British Columbia</i>	6%	21%	61%	12%
<i>Manitoba*</i>	22%	22%	22%	33%
<i>Newfoundland &amp; Labrador*</i>	0%	0%	40%	60%
<i>Northwest Territories*</i>	14%	14%	43%	29%
<i>Nunavut*</i>	14%	43%	29%	14%
<i>Ontario</i>	4%	8%	58%	29%
<i>Quebec</i>	10%	0%	55%	35%
<i>Saskatchewan*</i>	0%	0%	17%	83%
<i>Yukon</i>	0%	7%	50%	43%
United States				
<i>Alaska</i>	0%	8%	50%	42%
<i>Arizona*</i>	22%	0%	44%	33%
<i>Colorado*</i>	0%	33%	50%	17%
<i>Idaho*</i>	0%	0%	71%	29%
<i>Montana*</i>	0%	40%	40%	20%
<i>Nevada</i>	0%	5%	40%	55%
<i>Utah*</i>	13%	0%	50%	38%
Australia				
<i>New South Wales</i>	18%	5%	55%	23%
<i>Northern Territory*</i>	0%	33%	0%	67%
<i>Queensland</i>	0%	0%	65%	35%
<i>South Australia*</i>	0%	11%	44%	44%
<i>Western Australia</i>	0%	0%	48%	52%
Scandinavia				
<i>Finland*</i>	0%	0%	17%	83%
<i>Sweden</i>	0%	9%	55%	36%

Note: \* indicates between 5 and 9 responses.

## Regulatory Uncertainty and Permitting

How are responses to the regulation questions from the broader mining survey related to responses from the survey on permit approval times? Our analysis of this question computed correlations between each of the three regulation questions, focusing on the percentage of negative responses to each of those questions, and three measures from this year's permit study—the time to permit approval, whether transparency was a deterrent to investment or not, and how certain the miners were that they would receive all necessary permits. The results of this analysis are presented below in **table 7**.

Table 7: Correlations between negative perceptions of regulation and aspects of the permitting process

	Percentage of respondents receiving necessary permits in six months or less	Percentage of respondents indicating transparency encourages, or was not a deterrent to, investment	Percentage of respondents who were highly confident or confident that they would receive permits
Uncertainty concerning the administration, interpretation, and enforcement of existing regulations	-0.20	-0.57	-0.62
Uncertainty concerning environmental regulations	-0.45	-0.54	-0.56
Regulatory duplication and inconsistencies	-0.29	-0.62	-0.65

In general, all relationships were negative. This means that jurisdictions that had higher percentages of respondents indicate that the three regulatory variables were deterrents to investment, also tended to have longer wait times for permits, less transparency, and less confidence that permits would eventually be granted. In particular, there were relatively strong negative relationships between responses to uncertainty concerning the administration, interpretation, and enforcement of existing regulations and the evaluations from respondents as to both how transparent and certain the permitting process is. The results between responses to regulatory duplication and inconsistencies and both transparency and confidence had strong negative correlations, meaning that, according to miners, jurisdictions with more regulatory duplication and inconsistencies also had less transparency and certainty in the permitting process. The regulatory variable that had the strongest negative relationship with the time it takes to receive a permit was uncertainty concerning environmental regulations.



## Conclusion

Competitive public policies for mining and exploration are those that establish appropriate goals and procedures for regulations but also place comparably low costs on firms. The permitting process for mining exploration is one area that is often overlooked in broader policy debates on mining. Yet, uncompetitive policies in this area can increase the time, costs, and risks associated with exploration, potentially leading to reduced investment and decreasing the chances that a viable deposit will be found and eventually developed into a mine.

Based on this year's report, many Canadian jurisdictions are lagging behind their international competitors for changes over time to permit approval, transparency, and confidence that permits will be granted. Based on the evidence presented, there is certainly room for many of Canada's provinces and territories to improve the exploration permitting process. Policy reform in these areas may help Canada's provinces and territories unlock their considerable mineral potential (**table 8**).

Table 8: Relative ranking of provincial and territorial performance on areas of the permitting process

	Time			Transparency	Confidence
	Percentage of respondents receiving necessary permits in six months or less	Percentage of respondents indicating that time to permit approval had lengthened over the previous 10 years	Percentage of respondents indicating that timelines were met more than 60% of the time	Percentage of respondents indicating transparency encourages, or was not a deterrent, to investment	Percentage of respondents who were highly confident or confident that they would receive necessary permits
Canada					
<i>British Columbia</i>	14 <sup>th</sup>	20 <sup>th</sup>	21 <sup>st</sup>	16 <sup>th</sup>	17 <sup>th</sup>
<i>Manitoba*</i>	6 <sup>th</sup>	10 <sup>th</sup>	19 <sup>th</sup>	22 <sup>nd</sup>	22 <sup>nd</sup>
<i>Nfld &amp; Labrador*</i>	1 <sup>st</sup>	1 <sup>st</sup>	2 <sup>nd</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>
<i>Northwest Territories*</i>	15 <sup>th</sup>	17 <sup>th</sup>	5 <sup>th</sup>	20 <sup>th</sup>	18 <sup>th</sup>
<i>Nunavut*</i>	23 <sup>rd</sup>	19 <sup>th</sup>	23 <sup>rd</sup>	21 <sup>st</sup>	23 <sup>rd</sup>
<i>Ontario</i>	7 <sup>th</sup>	22 <sup>nd</sup>	12 <sup>th</sup>	17 <sup>th</sup>	14 <sup>th</sup>
<i>Quebec</i>	3 <sup>rd</sup>	6 <sup>th</sup>	11 <sup>th</sup>	12 <sup>th</sup>	11 <sup>th</sup>
<i>Saskatchewan*</i>	4 <sup>th</sup>	2 <sup>nd</sup>	1 <sup>st</sup>	1 <sup>st</sup>	2 <sup>nd</sup>
<i>Yukon</i>	2 <sup>nd</sup>	18 <sup>th</sup>	14 <sup>th</sup>	14 <sup>th</sup>	8 <sup>th</sup>
United States					
<i>Alaska</i>	5 <sup>th</sup>	13 <sup>th</sup>	8 <sup>th</sup>	9 <sup>th</sup>	9 <sup>th</sup>
<i>Arizona*</i>	17 <sup>th</sup>	9 <sup>th</sup>	18 <sup>th</sup>	15 <sup>th</sup>	15 <sup>th</sup>
<i>Colorado*</i>	9 <sup>th</sup>	15 <sup>th</sup>	17 <sup>th</sup>	18 <sup>th</sup>	20 <sup>th</sup>
<i>Idaho*</i>	20 <sup>th</sup>	23 <sup>rd</sup>	20 <sup>th</sup>	19 <sup>th</sup>	6 <sup>th</sup>
<i>Montana*</i>	13 <sup>th</sup>	21 <sup>st</sup>	15 <sup>th</sup>	13 <sup>th</sup>	21 <sup>st</sup>
<i>Nevada</i>	8 <sup>th</sup>	12 <sup>th</sup>	10 <sup>th</sup>	11 <sup>th</sup>	7 <sup>th</sup>
<i>Utah*</i>	11 <sup>th</sup>	7 <sup>th</sup>	9 <sup>th</sup>	8 <sup>th</sup>	13 <sup>th</sup>
Australia					
<i>New South Wales</i>	19 <sup>th</sup>	14 <sup>th</sup>	22 <sup>nd</sup>	23 <sup>rd</sup>	16 <sup>th</sup>
<i>Northern Territory*</i>	22 <sup>nd</sup>	16 <sup>th</sup>	13 <sup>th</sup>	10 <sup>th</sup>	19 <sup>th</sup>
<i>Queensland</i>	16 <sup>th</sup>	4 <sup>th</sup>	4 <sup>th</sup>	6 <sup>th</sup>	5 <sup>th</sup>
<i>South Australia*</i>	18 <sup>th</sup>	11 <sup>th</sup>	16 <sup>th</sup>	7 <sup>th</sup>	12 <sup>th</sup>
<i>Western Australia</i>	10 <sup>th</sup>	3 <sup>rd</sup>	3 <sup>rd</sup>	3 <sup>rd</sup>	4 <sup>th</sup>
Scandinavia					
<i>Finland*</i>	21 <sup>st</sup>	5 <sup>th</sup>	6 <sup>th</sup>	5 <sup>th</sup>	1 <sup>st</sup>
<i>Sweden</i>	12 <sup>th</sup>	8 <sup>th</sup>	7 <sup>th</sup>	4 <sup>th</sup>	10 <sup>th</sup>

Note: \* indicates between 5 and 9 responses.

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