

# Minto Mine

Socio-Economic Monitoring Program  
Annual Report 2015





Prepared in collaboration by Selkirk First Nation,  
Government of Yukon and Minto Explorations Ltd.  
July 2018

SFN Chief and Council touring Minto Mine

COVER PHOTO: SELKIRK FIRST NATION

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## Preface

Minto Explorations Ltd. (Minto), the Government of Yukon and Selkirk First Nation (SFN) — the “Parties” — form the Tri-Partite Socio-economic Working Group (TPWG) and have worked collaboratively to develop the Minto Mine Socio-economic Monitoring Program. The Parties developed the program in recognition of their respective roles in protecting and promoting the economic, social and cultural well-being of peoples and communities affected by the development of the Minto Mine. The commitment arose out of the Government of Yukon and SFN *Yukon Environmental and Socio-economic Assessment Act* (YESAA) decision documents associated with the expansion of the Minto Mine and was formalized by a Letter of Agreement signed by the Parties in 2014.

Through the mine’s operation and closure phases, the program will evaluate the effectiveness of mitigation and enhancement measures in managing socio-economic effects of the mine and, where warranted, will identify alternative management actions.

The 2015 Annual Report is the second of a series of annual reports that will be released as part of the Minto Mine Socio-economic Monitoring Program. Data in this Annual Report have been contributed by Minto, the Government of Yukon and SFN. This report includes results of the first SFN community-level survey. Additional surveys will be undertaken every five years. This is the first time that community data of this nature has been released by a Yukon First Nation and it addresses many of the gaps identified in the 2014 annual report.

The success of the program to date has been due to collaboration among the Parties; this collaboration will continue to ensure that future milestones are achieved. The Parties expect this program to serve as a blueprint for effects-monitoring programs in other communities across Yukon.

*Please note that all monetary amounts are in Canadian dollars.*

## Disclaimer

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## Acknowledgements

The Tri-Partite Working Group (TPWG) acknowledges several contributors who made this report possible.

Significant efforts were made by SFN and their TPWG representatives, Lindsay Staples and Lois Craig, in concert with the Yukon Bureau of Statistics, to design and administer the 2015 SFN Household Survey and offer insights on how the results can be utilized.

New data was also provided by Minto in 2015. Thanks to Jane-Marie Glynn and Jennie Gjertsen of Minto Explorations Ltd. for providing this information and for also securing original data files from the 2014 Annual Report. Some 2015 data was also provided by the Yukon Bureau of Statistics. Thanks to Gary Brown of the Yukon Bureau of Statistics in securing and compiling this data. Thanks also to Phil Shantz and Arvind Chandrasekar from Arcadis Canada Inc. for preparing this report.

The report was finalized with substantive contribution and significant collaboration by all the parties.

## The Tri-Partite Working Group

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## Acronyms

CANSIM	Canadian Socio-economic Information Management System
CRA	Canada Revenue Agency
CNIM	Centre for Northern Innovation in Mining
CWB	Community Well Being
FN	First Nation
HEO	Heavy Equipment Operator
km <sup>2</sup>	Square kilometres
LSA	Local Study Area
Minto	Minto Explorations Ltd.
NHS	National Household Survey
OFN	Other First Nations
RCMP	Royal Canadian Mounted Police
RSA	Regional Study Area
SFN	Selkirk First Nation
TPWG	Tri-Partite Working Group
YBS	Yukon Bureau of Statistics
YESAA	Yukon Environmental and Socio-economic Assessment Act
YESAB	Yukon Environmental and Socio-economic Assessment Board
YMTA	Yukon Mine Training Association



View of Pelly Crossing

PHOTO: GOVERNMENT OF YUKON

# 1 | Introduction



Yukon College Mining Students

PHOTO: GREG MARTIN PHOTOGRAPHY

This report is produced by the Tri-Partite Working Group (TPWG), which is comprised of representatives from Selkirk First Nation (SFN), the Government of Yukon and Minto Explorations Ltd. (Minto), a subsidiary of Capstone Mining Corp.



View of Pelly Crossing

PHOTO: GOVERNMENT OF YUKON

# 1. Introduction

**Since commencing production in 2007, the mine licence has been amended to allow the mining of new ore bodies. Those amendments were assessed under the *Yukon Environmental and Socio-economic Assessment Act (YESAA)*.**

Conditions for the Phase IV expansion project amendment approval included the requirement by the Government of Yukon and SFN to establish a systematic socio-economic monitoring program for the mine.<sup>1,2</sup>

Minto, SFN and the Government of Yukon have established a socio-economic monitoring framework and program for the Minto Mine through the collaborative efforts of the working group, as amended in 2017.<sup>3</sup>

The Minto Mine is located on SFN Settlement Land in accordance with provisions in the Selkirk First Nation Final Agreement, and Pelly Crossing is the closest community to the mine. This report, therefore, has a strong focus on Pelly Crossing, SFN and Yukon.

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1 YESAA 2010-0198 Minto Mine Expansion Phase IV, the Government of Yukon Decision Document 2010-0198-141-1 <http://www.yesabregistry.ca/wfm/lamps/yesab/low-speed/projectdetails.jsp;time=1518649154443>

2 YESAA 2010-0198 Minto Mine Expansion Phase IV, Selkirk First Nation Decision Document 2010-0198-143-1 <http://www.yesabregistry.ca/wfm/lamps/yesab/low-speed/projectdetails.jsp;time=1518649154443>

3 Minto Mine Socio-economic Monitoring Program: Components, Information and Program Requirements [www.emr.gov.yk.ca/mining/pdf/mml\\_minto\\_socioeconomic\\_monitoring\\_program.pdf](http://www.emr.gov.yk.ca/mining/pdf/mml_minto_socioeconomic_monitoring_program.pdf).



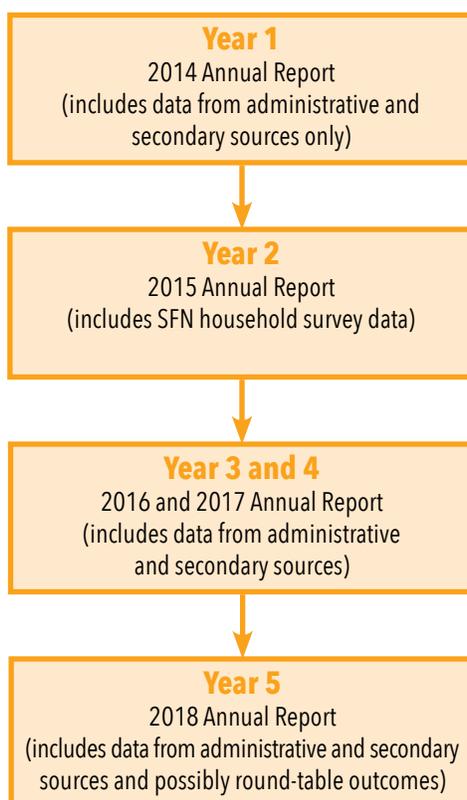
## 1.1 Purpose of the Socio-economic Monitoring Program

**The purpose of the program is to monitor the socio-economic effects of Minto Mine’s construction, operations and closure. The program has two components to meet this purpose: a socio-economic baseline and ongoing measurements against that baseline.**

In a socio-economic effects assessment, the baseline provides a benchmark of social and economic conditions at a given point or points in time. Changes in those conditions can be compared and measured against the benchmark. This information helps to determine the direction (positive or negative) and degree of changes (i.e., significance of change) in conditions. It also has the potential to increase the accuracy of predictions about the effects of development on those conditions.

It is important to note that trends — whether positive or negative — are not necessarily directly connected to the operation of the Minto Mine. Other factors may have a contributing or overriding influence on certain socio-economic aspects described in this report.

**Figure 1-1. Five-year Reporting Cycle**



### 1.1.1 Program Timeline

The three parties created the basis for the Socio-economic Monitoring Program through the formation of the TPWG in 2011.

In July 2013, Minto submitted its project proposal for Phase V/VI mine expansion to the YESAB. In that proposal, the company reaffirmed their commitment to the Socio-economic Monitoring Program, as did SFN and the Government of Yukon in their YESAA decision documents.

The TPWG continued to develop the program framework, which was formally approved by the parties in 2014. A household survey of Living Conditions by SFN forms a critical part of the efforts to collect relevant and current data at the community level. The survey was designed and approved in the fall of 2014 and completed in Spring 2015. The results are incorporated in this Report.

Minto's amended Quartz Mining Licence (QML-001), issued in December 2014, includes the first socio-economic requirement attached to a mining licence in Yukon. It requires Minto to implement the socio-economic monitoring framework and to report on monitoring progress annually. Figure 1-1 provides an overview of the first 5-year reporting cycle, which reflects TPWG recommendations on reporting frequency.

### 1.1.2 Project Setting

The Minto Mine is an open pit and underground copper mine. Construction began in 2006 and the mine has been in commercial production since 2007. In 2015, Minto acquired a Water Use Licence renewal, see Appendix 2 for full summary timeline. The mine is located approximately 240 km northwest of Whitehorse and approximately 41 km southwest of Pelly Crossing. It lies within "Category A" Settlement Land (SFN R-6A), on the West side of the Yukon River (see Figure 1-2).<sup>4</sup>

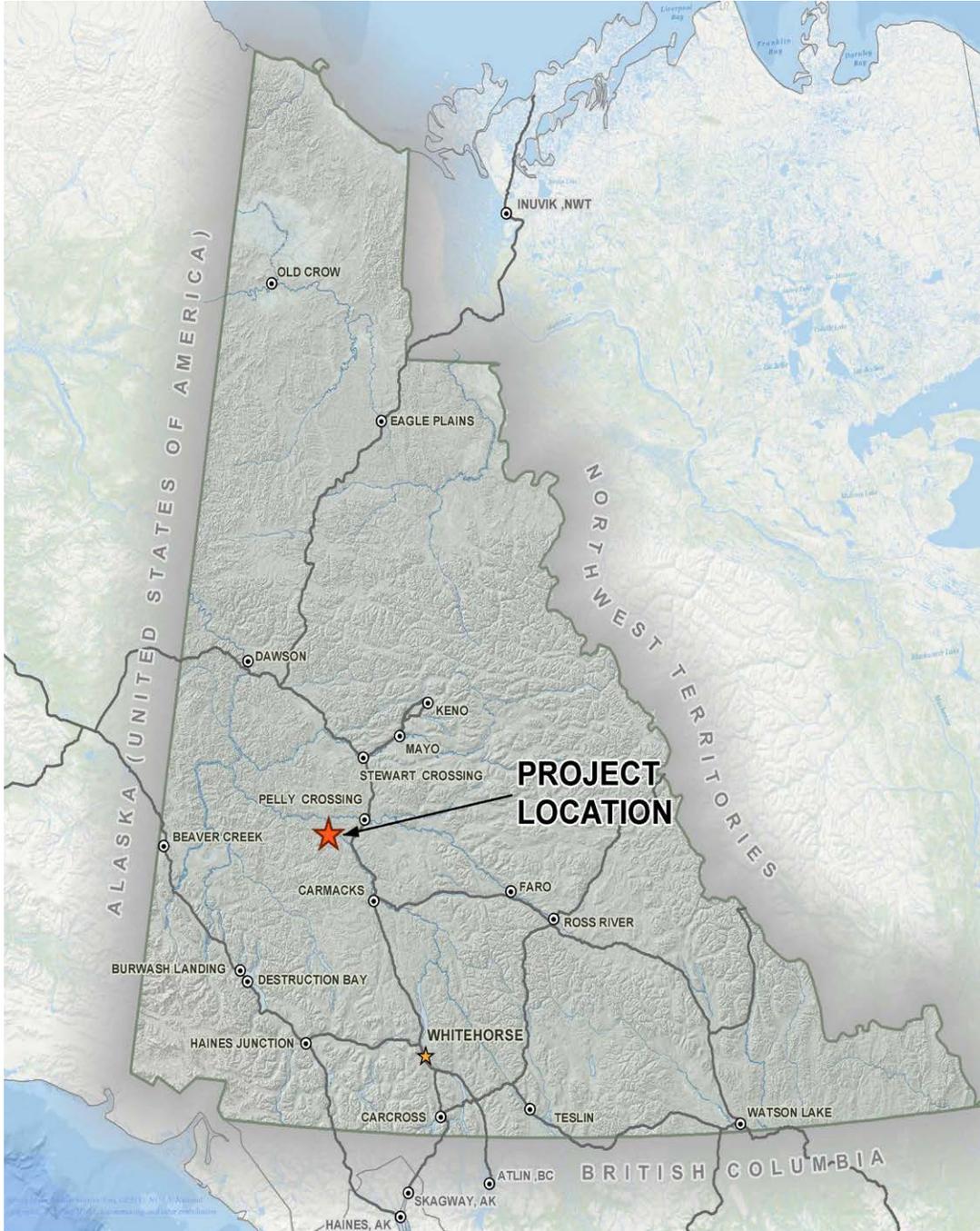
In 1997, SFN signed the Selkirk First Nation Final Agreement and the Selkirk First Nation Self-Government Agreement with the Governments of Canada and Yukon. SFN has ownership and control of 4,740 km<sup>2</sup> of land. This includes "Category A" Settlement Land, where SFN has ownership of both the surface and the subsurface (including minerals and oil and gas), and exclusive fish and wildlife harvesting rights; "Category B" Settlement Land, where SFN has ownership of the surface; and a small amount of land in the form of site-specific parcels.

The legislative powers of the SFN government include making laws with respect to the administration of the First Nation and the provision of programs regarding spiritual and cultural beliefs, language, health care and services, social and welfare services, training programs, adoptions, First Nation children, education, wills and intestacy, citizenship and all subordinate matters.

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<sup>4</sup> Section sources: [www.selkirkfn.ca](http://www.selkirkfn.ca); Selkirk First Nation/Pelly Crossing Integrated Community Sustainability Plan 2007, Inukshuk Planning and Development, May 2007; Minto Explorations Ltd. Minto Mine Yukon Territory, Minto Mine Expansion-Phase IV, Section 4.11 Socio-economic Conditions, August 2010.

Figure 1-2. Location of Minto Mine



## 1 | INTRODUCTION

SFN is governed by a Chief and Council who serve three-year terms. The Chief, two Wolf Councillors, two Crow Councillors, one Elder Councillor and one Youth Councillor are elected by SFN citizens. The responsibility and authority of Chief and Council is defined in a constitution, and Chief and Council report annually to the SFN General Assembly, where decisions and discussions guide the First Nation.

In 2015 the total number of SFN citizens<sup>5</sup>, both residing within and outside Yukon was 672 (Source: SFN). According to the Yukon Bureau of Statistics (YBS), Pelly Crossing had a population of 378 in 2015 and it is the community where the majority of Yukon-based SFN citizens reside (the total number of SFN citizens residing in Pelly Crossing in 2014 was 304, just over 76% of the population of Pelly Crossing). Many citizens participate in traditional activities (such as trapping, hunting, fishing and gathering) and contemporary economic pursuits. Efforts continue and teachings are practised to maintain the traditional culture.

SFN is the major land-owner within Pelly Crossing, which is an unincorporated community with no formal local government structure. SFN and the Government of Yukon share responsibility for service delivery. Pelly Crossing has a past that is rich in Northern Tutchone history, heritage and culture. The natural environment around Pelly Crossing supports many recreational activities.

**Table 1-1. Living Conditions and Valued Conditions**

<b>LIVING CONDITIONS</b>	<b>VALUED CONDITIONS</b>
<b>Community Stability and Well-being</b>	Community Stability and Well-being
	Family Stability and Well-being
	Health
	Housing
<b>Material Well-being</b>	Income and Income Distribution
	Employment
	Business
	SFN Traditional Economy
<b>Capacity, Training and Education</b>	Employment and Workforce Development
	Education and Training
<b>Cultural Well-being</b>	Connection to Land and Water
	Cultural Vitality
	Social Cohesion
<b>Sustainability and Legacy</b>	Fate Control and Preparedness
	Boom/Bust Management
	Costs and Benefits for Future Generations

<sup>5</sup> A SFN citizen is person recognized as such under the Selkirk First Nation Constitution – Amendment 2013.

## 1.2 Living Conditions, Valued Conditions & Indicators

**The Living Conditions, Valued Conditions<sup>6</sup> and indicators used in this report, form the basis for assessing the socio-economic effects of the Minto Mine. They are described in detail in Minto Mine Socio-economic Monitoring Program: Components, Information and Program Requirements (as amended in 2018). They have been developed from a wide variety of programs and studies that monitor socio-economic living conditions in communities around the circumpolar North, and modified and validated by SFN, the Government of Yukon and Minto.**

The Living Conditions, Valued Conditions and indicators are included in Appendix 1. A total of sixteen Valued Conditions are grouped under five Living Conditions (Table 1-1). The TPWG proposed some changes to the indicators that were initially established in 2014<sup>7</sup>; the Living Conditions and Valued Conditions remain unchanged. Revisions to the indicators were made for the following reasons:

- revision of certain indicator descriptions and addition of several new ones to better reflect available data, especially regarding the data collected in the 2015 SFN Household Survey of Living Conditions;
- revision to eliminate numerical duplication between certain indicators; and
- revision to eliminate indicators where data were not and would not be available in the future.

As a result, the numbered sequence of the indicators in the report and Appendix 1 has some gaps. As well, data are currently unavailable for some indicators and for this reason are not addressed in this report. Where appropriate, some indicators are applied to and measure more than a single Valued Condition.

In this report, a total of 60 of 65 indicators measure changes in the Valued Conditions, any of which could be affected by the mine's operations and closure. These indicators form the core of this report (see Appendix 1). Table A-1 in Appendix 1 has been updated for this report.

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<sup>6</sup> In this report the term "Valued Condition" is equivalent to the term "valued socio-economic component" as used by the YESAB. Valued socio-economic components, or VSECs, are defined by the YESAB as those parts of the socio-economic fabric that are valued because of their importance to a community, specifically because of their: integral connection to, or reflection of, the socio-economic system; commercial or economic value; and/or, their role in maintaining quality of life in a community.

Some VSECs are specific to a particular community or interest, but many overlap among communities and interests (Source: Yukon Environmental and Socio-economic Assessment Board. 2006. *Guide to Socio-economic Effects Assessments*, p.36.) A more recent discussion can be found online at [www.eao.gov.bc.ca/pdf/EAO\\_Valued\\_Components\\_Guideline\\_2013\\_09\\_09.pdf](http://www.eao.gov.bc.ca/pdf/EAO_Valued_Components_Guideline_2013_09_09.pdf).

<sup>7</sup> These are identified in the Minto Mine Socio-Economic Monitoring Program: Components, Information and Program Requirements – As Amended 2018.

## 1.3 Data Sources: Strengths & Limitations

There are four major data sources for the Minto Mine Socio-Economic Monitoring Program:

- **statistical data collected and published by Statistics Canada ([www.statcan.gc.ca/start-debut-eng.html](http://www.statcan.gc.ca/start-debut-eng.html)) and YBS ([www.eco.gov.yk.ca/stats](http://www.eco.gov.yk.ca/stats));**
- **internal data assembled by Minto;**
- **administrative data provided by the Government of Yukon and SFN; and**
- **community data from the household survey undertaken by SFN.**

This report incorporates data from the 2015 SFN Household Survey. The overall quality of statistical data from Statistics Canada and YBS is generally high; both agencies collect and treat data with rigour. However, rural Yukon communities — with their small populations — present challenges for collecting sufficient data that are statistically significant, while maintaining confidentiality.

At the community level, researchers typically rely on data from the national Census of the Population (Census) that is conducted every five years. Prior to 2011, the Census included a Part B (the long form) that captured comprehensive details regarding several key socio-economic aspects in the lives of Canadians. The long form was generally applied to a sample of 20% of Canadians. In Yukon (and elsewhere in the North), Statistics Canada applied it to 100% of rural community residents to ensure that data collected for those communities was statistically significant. Respondents were legally required to complete the long form; which resulted in a very high completion rate and helped ensure statistical validity.

For the 2011 Census, the mandatory long form census was replaced with the voluntary National Household Survey (NHS), which was sent to 30% of households. The completion rates for this now-voluntary survey plunged, making much of the data suspect and difficult to compare accurately against prior census data, especially for small communities. The 2016 national census has reinstated the mandatory long form survey and these results will be incorporated into subsequent reports.

Minto's internal data may be limited by certain factors, including the fact that the monitoring framework and its indicators were not developed and adopted until well into the mine's operation. As a result, historical data may not be available for some data indicators.

SFN administrative data, especially regarding retrieval in years prior to 2015, are compromised by data management system challenges. It is anticipated that these will be addressed in future years.

### 1.3.1 2015 Selkirk First Nation Household Survey of Living Conditions

This report relies heavily on data from the 2015 SFN Household Survey. This survey was conducted by SFN, with assistance from YBS and was funded by the Government of Yukon and SFN. The purpose of the survey was to collect information for the Minto Mine Socio-Economic Monitoring Program Framework. All SFN citizens aged 16 and older and living in Yukon were invited to participate. The survey asked questions about Cultural Vitality and Social Cohesion, Traditional Economy and Connection to the Land and Water, Health, Housing, Employment, Education and Training.

Substantial efforts were made to ensure the survey quality was high. YBS trained two Whitehorse-based interviewers to contact all respondents living outside of Pelly Crossing. The Operations Manager and Project Supervisor from YBS travelled to Pelly Crossing and trained five SFN interviewers.

The overall survey response rate was 70%. In Pelly Crossing, out of 244 potential respondents, 187 interviews were completed, for a response rate of 77%. Of the 142 potential respondents outside Pelly Crossing, 84 interviews were completed for a response rate of 59%.

SFN, the custodians of the 2015 SFN Household Survey results, ensured that those utilizing the data signed an appropriate data release agreement to maintain confidentiality.

For some indicators, certain survey data may be suppressed on matters deemed publicly “sensitive” by SFN or data may be currently unavailable if they have not been disaggregated from the larger data set.

As the SFN Household Survey is to be undertaken every five years it is recommended that future surveys do not vary significantly so that survey results are comparable from one period to the next.



Landscape near Pelly Crossing

# 2 | Predicted Socio-economic Effects



Yukon College Minto Mine training

PHOTO: JOEL CUBLEY

The monitoring program is intended to assess the socio-economic effects of the Minto Mine by comparing Valued Conditions pre-project and during the project as well as predicted and actual socio-economic effects. The socioeconomic effects predicted for the Phase V/VI mine expansion are consistent with predictions associated with earlier mine phases. Table 2-1 summarizes the predictions (grouped by Valued Condition) from the Minto Phase V/VI Socio-economic Study Report that Minto submitted to the YESAB in 2013.<sup>8</sup>

<sup>8</sup> YESAA 2013-0100 Minto Mine Expansion Phase V/VI, July 5, 2013

**Table 2-1. Predicted Socio-economic Effects, According to the Phase V/VI Socio-economic Study**

#	VALUED CONDITION	PREDICTION, PHASE V/VI SOCIO-ECONOMIC STUDY
1	Community stability and well-being	p.63: Minto is working with SFN through the Tripartite Socio-economic Working Group to further define wellness, so that this VSEC [valued socio-economic component] can be monitored and assessed in the future. Furthermore, Minto and SFN are working to determine how Minto may contribute to SFN community wellness.
		p.91: The effects of the Project on population in the RSA [regional study area] and the LSA [local study area] are expected to be minimal.
		p.99: Project operations will have positive effects on the well-being of communities in the LSA, as assessed according to the CWB [community well-being] Index evaluation by increasing employment opportunities, providing sources of income to residents, and supporting education initiatives... However, as with health, community well-being will be monitored as part of the Project effects monitoring program being led by the tripartite Socio-economic Working Group given the number of factors that come together to define community well-being and the fact that the factors affecting community well-being can change over time.
3	Health	p.94: Project operations are not expected to have a measurable effect on the health conditions of either the RSA or the LSA residents, based on Minto's current experience, since operations began.
4	Housing	p.93: Project operations are not expected to have a notable effect on housing in the LSA or the RSA given the small incremental number of employees and the fact that Minto will expand the capacity of the mine camp to accommodate all employees on-site during their shifts.
5	Income	p.86: ...the Project will result in the generation of approximately \$150 million of Minto direct site employment income along with an undetermined amount of contractor employment income. Assuming that the Phase IV distribution of workers is maintained in Phase V/VI, approximately 35% of the direct income could accrue to the RSA and the LSA; however, the actual percentage will depend on the nature of the employment secured by RSA and LSA residents and the associated salary.

**Table 2-1. Predicted Socio-economic Effects, According to the Phase V/VI Socio-economic Study**

#	VALUED CONDITION	PREDICTION, PHASE V/VI SOCIO-ECONOMIC STUDY
6	Employment	p.34: Minto is currently working with the SFN to develop initiatives to increase SFN employment at the mine including the creation of a SFN-Minto Mine Employment Liaison position.
		p.37: Minto is committed to increasing SFN employment at the mine and with its contractors.
		p.82: During project operations, employment opportunities are expected to range between 125 positions in year 2022 and 450 positions in year 2016 and 2017. Compared to the peak Phase IV employment levels (400 positions), this amounts to a maximum increase at peak project operations of approximately 50 positions.
		p.83: Based on the current breakdown of staff location (i.e., 35% Yukon based), 18 of the additional 50 positions would be filled by Yukon based (i.e., the RSA and/or the LSA residents) Minto or contractor employees at peak operations.
		p.84: Approximately four to five SFN citizens will be employed to assist with reclamation projects annually.
		p.84: Minto will continue to offer a summer student program which employs five SFN students for the summer months.
		p.84: Minto anticipates bringing in three apprentice positions in the near future in the maintenance department with the expectation that the program could grow as the mine develops.
		p.85: Employment opportunities will continue throughout decommissioning and closure. The number of employment opportunities is expected to range between 25 positions and 63 positions, including part-time and seasonal positions... It is anticipated that a greater proportion of workers will come from the LSA and the RSA during the decommissioning and closure phases.

**Table 2-1. Predicted Socio-economic Effects, According to the Phase V/VI Socio-economic Study**

#	VALUED CONDITION	PREDICTION, PHASE V/VI SOCIO-ECONOMIC STUDY
7	Business	p.79: SFN will also benefit from ongoing payments during mine operations and the LSA and the RSA will benefit from ad hoc donations from Minto throughout the mine life.
		p.80: Minto currently works with approximately 475 suppliers and has a number of initiatives in place to enhance the participation of RSA and LSA based businesses at the mine. In 2012, approximately \$81 million of Minto's \$277.3 million in total expenditures were in Yukon. The demand for goods and services is anticipated to continue at a similar level to that experienced during Phase IV until 2018, when demands will change with respect to changing activities at the mine. Although overall opportunities will decrease as the Project progresses through operations, Minto anticipates that a similar or larger portion of its expenditures will continue to be spent on Yukon based goods and services.
		p.80: The project will provide an opportunity for the Selkirk Development Corporation joint ventures serving the mine as well as other existing and new LSA businesses to increase their involvement in the Project given that approximately 70% of goods and services are currently sourced from outside Yukon.
		p.81: It is anticipated that new opportunities related to reclamation, monitoring, and site maintenance will arise for LSA and RSA businesses during decommissioning and closure. This will provide the opportunity for businesses currently not involved in the Project to become involved and, for certain businesses to be provided the opportunity for long-term involvement through closure.
		p.88: Minto has paid \$12.6 million in royalties to the SFN since 2008 (Government of Yukon, 2012), and payments are expected to continue at similar levels provided that there are no major changes in the market for products from the mine.
8	Traditional Economy	p.89: Effects [on traditional use activities] currently being experienced as a result of Phase IV will be extended as a result of the Project but increased effects over those currently experienced are not anticipated.

**Table 2-1. Predicted Socio-economic Effects, According to the Phase V/VI Socio-economic Study**

#	VALUED CONDITION	PREDICTION, PHASE V/VI SOCIO-ECONOMIC STUDY
9	<b>Employment and Workforce Development</b>	p.56: Minto is working with the SFN Education Department, local educational institutions, and the Government of Yukon to develop and support opportunities for SFN citizens.
		p.57: The Eliza Van Bibber School and Minto are working together to expand opportunities such as class trips to the mine site and credited work experience programs for senior students that provide students opportunities to observe and learn about the variety of careers available at the mine.
		p.58: Minto is currently working in partnership with Yukon College and the Yukon Mine Training Association (YMTA) to develop apprenticeship and internship opportunities.
		p.59: Minto is committed to providing training opportunities that facilitate the development of skills and careers with Minto and/or its contractors. Minto contractors are committed to hiring, training, and advancing the careers of local residents, wherever possible.
		p.85: Employment opportunities will continue throughout decommissioning and closure. The number of employment opportunities is expected to range between 25 positions and 63 positions, including part-time and seasonal positions... It is anticipated that a greater proportion of workers will come from the LSA and the RSA during the decommissioning and closure phases....

**Table 2-1. Predicted Socio-economic Effects, According to the Phase V/VI Socio-economic Study**

#	VALUED CONDITION	PREDICTION, PHASE V/VI SOCIO-ECONOMIC STUDY
10	Education and Training	p.61: With a view to furthering opportunities for LSA and RSA residents and other employees, Minto and its contractors are developing training opportunities in partnership with Yukon College, the YMTA, Mile 918 Driver’s School, and the Northern Safety Network for delivery of industry training.
		p.84: Minto will be putting on a training program in conjunction with SFN and the underground contractor at the mine. This will be provided to ten community members who will be qualified to work at the mine once they successfully complete the program.
		p.97: Education and training will be positively affected during project operations. The Project will result in the enhancement of the skill and education levels of LSA and RSA residents directly through on-the-job training and community based programs, and indirectly through training provided by Minto contractors. Furthermore, the Project will facilitate the continuation of the Minto-SFN scholarship program for advanced education, which was established for SFN citizens as part of the Minto-SFN Cooperation Agreement.
12	Cultural Vitality	p.100: Project operations will have indirect positive and negative influences on SFN cultural well-being through effects on such VSECs as business, employment, income, royalties, and donations.

# 3

## Summary of Observed Trends and Conditions



2017 Community Mining Experiential Extravaganza

PHOTO: WWW.ARCHBOULD.COM PHOTO COURTESY OF YUKON WOMEN IN MINING (YUKONWIM)

## 3.1 Observed Trends

**Table 3-1 summarizes the observed direction of some of the trends and associated changes in valued conditions that are detailed in Section 4. The table utilizes a model developed by the Government of Northwest Territories for monitoring the socio-economic effects of diamond mines on communities.<sup>9</sup>**

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Green arrows up or down (↑ or ↓) show trends or changes viewed as positive. Increasing employment is a positive indicator and would be shown with an up arrow (↑). A declining crime rate would also be positive and be shown with a green down arrow (↓).

Red arrows up or down (↑ or ↓) show trends or changes viewed as negative. An increasing crime rate is negative and would be shown as (↑). A decreasing employment rate is negative and would be shown with a red down arrow (↓).

Where there is no observed trend, or the trend is neutral or negligible, a long dash (—) is shown. The abbreviation “np” indicates no prediction.

Trends or changes are assessed using 2006, the year construction commenced, as the base year for comparison purposes. For some indicators, such as those relying on the NHS, data existed pre-2006. However, for other indicators the base year varies and they have only recently been assessed, such as those indicators based on the findings of the 2015 SFN Household Survey.

Not all indicators can be summarized as having a trend. Indicators with qualitative descriptions may not lend themselves to being summarized by an up or down arrow. For some indicators, there are insufficient data available to establish a trend. It is important to stress that these trends — positive or negative — are not necessarily directly connected to operation of the Minto Mine. Other factors may be a contributing or overriding influence on some of the socio-economic conditions described in this report. Some trends will be unchanged from year to year based on data availability, for example certain indicators that rely on the NHS are only reported every five years. The summary of trends is intended to identify patterns over the entire period and not intended to describe short-term changes (i.e. one year).

Table 3-1 groups selected indicators by Living Conditions (see Table 1-1). Indicators are discussed in detail in Section 4. In cases where the Phase V/VI Socio-economic Study predicted how the mine would affect a particular indicator (see Table 2-1), that prediction is included in Table 3-1. Table 3-1 also provides an explanatory comment for each indicator. Where data is not available for an indicator or the data cannot be analyzed for trends, the indicator is not listed in the table.

<sup>9</sup> See Government of Northwest Territories. Communities and Diamonds. [www.assembly.gov.nt.ca/sites/default/files/td227-175.pdf](http://www.assembly.gov.nt.ca/sites/default/files/td227-175.pdf).

**Table 3-1. Summary of Observed Trends, Pelly Crossing and Yukon**

INDICATOR #	INDICATOR	TREND IN PELLY CROSSING	TREND IN YUKON	PREDICTED TREND	COMMENT
<b>Population and Health</b>					
Indicator #1	SFN citizens by Residency	↑	-	np	Since 2006 the population of SFN citizens in Pelly Crossing has increased. Increasing population of SFN citizens in Pelly Crossing should be considered a positive indicator of socio-economic satisfaction.
Indicator #2	Duration of residency (five years)	↑	-	-	The percentage of people living in Pelly Crossing for at least five years since 2006 has slightly increased, indicating greater community stability.
Indicator #5	Crime severity	-	-	-	The rates of reported criminal incidents (all forms) in Pelly Crossing increased from 2006 to 2011 but have declined since. The highest rates of violent crime were in the 1998 - 2002 period. Since that time the rate of violent crime has generally been half of that period and consistent except for increases in 2010, 2011, 2013 and 2014.
Indicator #6	Family structure (lone-parent families)	-	-	np	In Pelly Crossing, the proportion of lone-parent families rose significantly from 2001 to 2006 with only a negligible or slight increase from 2006 to 2011.
Indicator #10	Minto and contractor safety	↑	↑	np	There has been an overall downward trend in the number of total safety incidents since 2011.
Indicator #15	Housing condition (need for major repair)	↑	-	-	In Pelly Crossing, the trend on occupant-reported need for major repairs on dwellings is up significantly, which may be a sign that the overall condition of the housing stock is deteriorating.

**Table 3-1. Summary of Observed Trends, Pelly Crossing and Yukon**

INDICATOR #	INDICATOR	TREND IN PELLY CROSSING	TREND IN YUKON	PREDICTED TREND	COMMENT
<b>Material Well-being</b>					
Indicator #16	Average employment income by residency, Minto	↑	-	↑	Average employment income for Minto employees in Pelly Crossing appears to be trending upward but there is no clear trend for the rest of Yukon.
Indicator #17	Average employment income by residency, contractors	↑	↑	↑	Taken together, the major contractors at the Minto Mine show a general upward trend in average employment income for both Pelly Crossing and Yukon, as predicted.
Indicator #19	Average household income	↑	↑	np	Average household income rose in both Yukon and Pelly Crossing.
Indicator #20	Average personal income	↑	↑	↑	Average personal income rose in both Yukon and Pelly Crossing. Note that 2011 NHS Census data for Pelly Crossing is difficult to compare to previous census data (see section 1.3).
Indicator #23	Minto employment by group	↑	↑	↑	SFN employment has shown modest growth since 2012, from a very low base. Non-First Nations Yukon employee numbers have grown more quickly.
Indicator #24	Minto employment by residency	-	↑	↑	Approximately 35% of Minto employees live in Yukon. Pelly Crossing residents make up approximately 5-9% of Minto's employees.
Indicator #25	Employment by contractors	-	-		There are no clear trends in Pelly Crossing and Yukon employment by contractors.
Indicator #26	New hires by group	-	↑		SFN new hires increased sharply from late 2011 through to early 2013 before declining again. Non-First Nations new hires have shown a general upward trend.
Indicator #28	Employment rate	-	-	np	The significant decrease apparent in the employment rate in Pelly Crossing as found in the 2011 NHS is highly unlikely to have occurred. It is more likely to be an artefact of the sampling errors caused by elimination of the long form census in 2011.

### 3 | SUMMARY OF OBSERVED TRENDS AND CONDITIONS

**Table 3-1. Summary of Observed Trends, Pelly Crossing and Yukon**

INDICATOR #	INDICATOR	TREND IN PELLY CROSSING	TREND IN YUKON	PREDICTED TREND	COMMENT
<b>Material Well-being, continued</b>					
Indicator #29	Unemployment rate	↓	↓	np	The apparent surge in the unemployment rate in Pelly Crossing as found in the 2011 NHS is unlikely to have occurred.
Indicator #30	Participation rate	↓	–	np	The significant decrease apparent in the participation rate in Pelly Crossing as found in the 2011 NHS is highly unlikely to have occurred. Yukon's labour force participation rate was unchanged from 2006 to 2011.
Indicator #33	Operations and capital spending	–	–		Direct economic inputs resulting from Minto's operating and capital expenditures will continue during ongoing operation of Minto Mine.
Indicator #36	Royalty payments	–		–	Royalty payments continue during ongoing operation of Minto Mine, relative to production levels and market commodity prices.
Indicator #37	Property tax payments	–		np	Property tax payments show an upward trend in Yukon from 2009 to 2013. Payments have only slightly varied since 2013.
<b>Capacity, Education and Training</b>					
Indicator #48	School absenteeism	↑	–		Yukon school absenteeism has been steady over the three years. School absenteeism in Pelly Crossing is significantly higher than for Yukon as a whole and is on a clear upward trend.

## 3.2 Observed Conditions

This is a new report section intended to summarize key findings for each Living Condition and identify new findings in the reporting year. The incorporation of data from the SFN Household Survey provides a rich and recent source of new information on SFN citizens. A limited amount of information is presented on the NHS as the 2011 Census was voluntary and may be a limited representation of northern communities (see section 1.3). As such the NHS findings have been interpreted with caution.

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### Population and Health

Population and Health includes the valued conditions of community stability and well-being, family stability and well-being, health, and housing.

The populations of Pelly Crossing and SFN citizens living in Pelly Crossing have increased since data has been tracked. In 2015 the SFN Household survey identified that the three main reasons for individuals staying in Pelly Crossing were: connections to the land and ability to practice traditional activities; jobs/economic opportunities; and family/social attachments. With respect to mobility, approximately eighty percent of SFN citizens in either Pelly Crossing or Yukon did not move in the last five years. The two major reasons cited for moving were economic or socio-economic considerations specifically – school/training and work.

Rates of violent and non-violent criminal incidents have varied since data was available in the late 1990s, but have shown a decrease in the last couple of years. According to the SFN Household Survey approximately two-thirds of the respondents felt Pelly Crossing to be as safe as five years earlier, with the remaining respondents split equally between unsafe and safe. The perceptions therefore generally align with the data.

On a positive note, almost 90% of respondents to the SFN Household Survey considered their mental health to be excellent, very good or good. With respect to physical health, slightly over 75% reported it also to be excellent, very good or good.

The one valued condition where the perceptions of SFN citizens in Pelly Crossing differ from those in the rest of Yukon is housing. According to the SFN Household Survey, 61% of Pelly Crossing respondents expressed that they were neutral, dissatisfied or very dissatisfied with their housing compared to only 20% of other Yukon citizens that share this view. These results are generally in accordance with findings from the two previous National Household Surveys.

#### Material Well-Being

Material Well-Being includes the valued conditions of income and distribution and employment.

Average hourly earnings for both Minto employees and contractors have increased since 2008, with somewhat greater increases for Minto employees specifically. Minto employees that live in Pelly Crossing have received the highest increases. Minto employees who reside outside Yukon have higher average hourly earnings than those in Yukon. This is likely driven in part by the number of permanent and professional employees who reside outside Yukon.

While information from the NHS should be interpreted with caution it is important to note that median and average income in Pelly Crossing has been approximately two-thirds of what it was for all of Yukon in all census years since 2001. The same is generally true for personal income.

According to the SFN Household Survey, household income in Pelly Crossing ranges widely from 24% of households earning under \$20,000 to 9% earning over \$100,000. The SFN Household Survey also demonstrated that only 32% of SFN citizens living in Pelly Crossing were satisfied or very satisfied with their financial circumstances while 59% of SFN citizens living in the rest of Yukon had the same level of satisfaction.

In 2014 and 2015, slightly over 200 SFN citizens received financial relief while working on career planning, counseling and work opportunities. Both the NHS and the 2015 SFN Household Survey demonstrate the majority of income is derived from employment. Government transfers and other income represent a small proportion of total income.

With respect to employment at the Minto Mine, as of December 2015 roughly half of the total employees are from Yukon with the rest being from elsewhere in Canada. Approximately 7% of the employees are SFN citizens and 16% are from other First Nations. Over time, employment has grown for SFN citizens, other First Nations and individuals from within Yukon. Almost all the employment related to underground mining is specialized work completed by individuals from outside of Yukon. The majority of employees hired by the surface mining contractor and the camp contractor are Yukon First Nations individuals and other Yukon residents.

The SFN Household Survey indicated the general rate of employment for SFN citizens living in Pelly Crossing was significantly lower and unemployment significantly higher compared to SFN citizens living in Whitehorse and for Yukon residents generally.

SFN receives revenue through mineral royalties that are paid by Minto. While these payments are variable depending on production levels and market commodity prices, they have generated significant revenue since the start-up of the mine.

The SFN Household Survey has allowed for a more comprehensive understanding of the extent of the SFN Traditional Economy. Almost 90% of SFN citizens living in Pelly Crossing participate in hunting and fishing as well as significant participation in gathering and trapping activities. Generally, participation by SFN citizens living in other parts of Yukon is marginally lower with around 70% participating in fishing and hunting. Slightly over 40% of SFN citizens living in Pelly Crossing have more than half of their diet coming from traditional food.

#### Capacity, Training and Education

Capacity, Training and Education includes the valued conditions of employment and workforce development, and education and training.

With respect to the level of education among SFN citizens, about 35% of respondents have high school, trade or a technical certificate and just over 4% have a bachelor's degree.

Minto has undertaken a number of initiatives to provide training and workforce development opportunities to SFN citizens.

The 2015 SFN Household Survey reported 41% of SFN citizens in Pelly Crossing do not have a driver's licence compared to only 19% of SFN citizens in Yukon. Having a driver's licence is often a prerequisite for many, if not most, kinds of employment and is often necessary to facilitate higher educational and training opportunities. Such a common qualification in Canada may be a significant impediment for a large portion of SFN citizens.

#### Cultural Well-Being

Cultural Well-Being includes the valued conditions of connection to land and water, cultural vitality, and, social cohesion.

While the SFN Household Survey demonstrated the importance of traditional harvesting to the diet of SFN citizens, it also has cultural significance. Eighty-two percent of SFN citizens indicated they were either satisfied or very satisfied with access to traditional foods. Moreover, 83% of the respondents identified good harvesting opportunities as the number one reason for staying in the community.

Knowledge of traditional Dooli laws and customs remains high within Pelly Crossing with 89% indicating they are knowledgeable or somewhat knowledgeable. Only 56% of SFN citizens elsewhere in Yukon indicated the same levels of knowledge.

Only 35% of Pelly Crossing and 7.5% of other Yukon SFN citizens have the ability to speak Northern Tutchone very well, well or with some difficulty. The competency to speak the language is highest with adults 65 and over, which may indicate that language competency will decline over time without further measures.

The sharing of traditional food is considered a traditional value that promotes social cohesion. Over 75% of all Pelly Crossing SFN respondents indicated that they received at least some portion of their food from others and over 60% indicated that they shared at least some portion of their food with others.

In general, SFN citizens indicate a high level of satisfaction with family and relationships. Eighty-seven percent of Pelly Crossing and 84% of other Yukon SFN residents indicated that they are satisfied or very satisfied. A majority also indicated satisfaction with the community, with 62% of Pelly Crossing and 81% of other Yukon SFN respondents indicating that they were satisfied or very satisfied. It is unknown why a lower percentage of Pelly Crossing respondents indicated less satisfaction but a number of areas for community improvement were noted including: community services and support, employment opportunities, traditional activities and housing.

Harvesting opportunities, family obligations and attachments and community friends and social networks were all cited as reasons for staying in Pelly Crossing.

#### Sustainability and Legacy

Sustainability and Legacy includes the valued conditions of fate control and preparedness, boom/bust management, and, costs and benefits for future generations. This living condition is the least developed of the five, however it addresses important matters related to mine-related legacy issues, socio-economic effects associated with long-term environmental conditions and cost and benefits for future generations.

Fate control refers to the preparedness and ability of SFN, Minto and the Government of Yukon to manage the benefits and adverse effects that may result from the Minto Mine. The Minto Mine Socio-Economic Monitoring Program is an important tool for accomplishing this and for addressing unanticipated effects and surprises. To date, the bilateral arrangements and agreements between SFN and Minto have contributed to positive outcomes for both parties. Employment and income data for SFN suggest that greater attention to training, education and capacity building and socio-cultural factors affecting employment preferences may contribute to a better understanding of obstacles to SFN under-participation in certain mine-related economic opportunities.

To date, notwithstanding the cyclical nature and variable level of Minto Mine activity in response to fluctuating metal prices, Yukon has not experienced a direct boom or bust from Minto Mine operations. Although economic diversity in Pelly Crossing remains narrow with a heavy reliance on employment through SFN government and the traditional harvesting economy, both currently buffer the effects of externally induced economic shocks, such as collapsing metal prices and mine closures.

The valued condition of costs and benefits for future generations is partly addressed through data from the SFN Household Survey. As a partial measure of the sustainability of socio-ecological systems, the survey results document SFN citizens' level of satisfaction and confidence that recent past and future renewable resources have met and will meet their traditional food requirements – a core sector of the SFN/Pelly Crossing mixed economy. Approximately 50% of the respondents indicated the condition would remain stable, 38% indicating a perceived decrease in the previous five years and 18% indicating a perceived decrease in the next five years.

Royalties generated by operation of Minto Mine are a potentially significant contributor to the future economic sustainability of SFN and benefits through development of programs and services.

Further discussions are required on this Living Condition and associated indicators through community round tables and future data from the 2016 NHS and the next SFN Household Survey.



North Klondike Highway bridge at Pelly Crossing

PHOTO: GOVERNMENT OF YUKON

# 4 | All Observed Socio-economic Conditions and Effects



SFN Citizens at North American Indigenous Games

PHOTO: SELKIRK FIRST NATION

**There are 16 Valued Conditions that have two or more data indicators to assess socio-economic conditions and effects.** Sections 4.1 to 4.16 describe the indicators, the rationale for why the indicators were selected, and present associated data (if any). All those indicators for which there are data are included in this section.

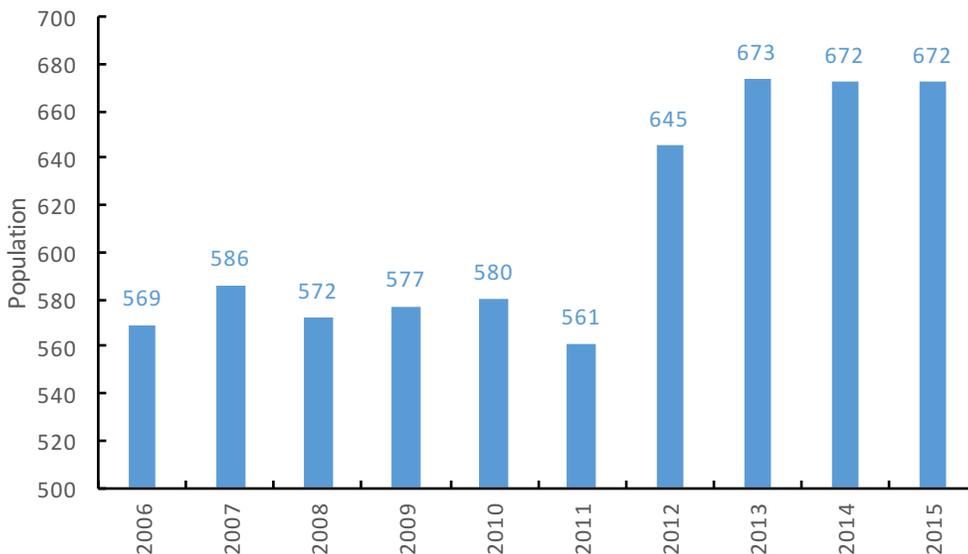
## 4.1 Community Stability & Well-being

This section presents the available data for Indicator #1 (SFN Citizens by residency); Indicator #2 (Duration of residency); Indicator #3 (Net migration); Indicator #4 (SFN Reasons for staying within Pelly Crossing); and, Indicator #5 (Crime severity).

### 4.1.1 Indicator #1 Selkirk First Nation Citizens by Residency

The choice of where to live reflects local and non-local conditions, opportunities and life choices. 4-1 shows the total population of SFN citizens. The population spike in 2012 is most likely due to many unregistered people applying and being accepted as citizens.

**Figure 4-1. Total Population of SFN Citizens: 2006-2015**



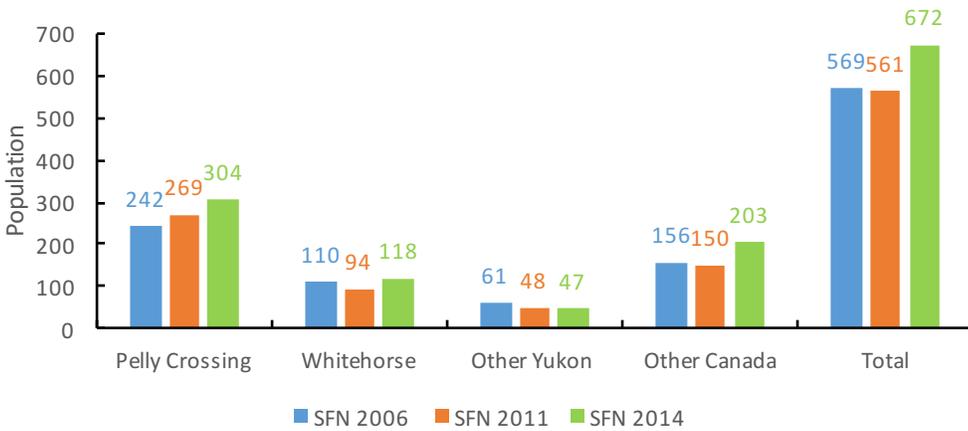
Source: Selkirk First Nation Administration

**Notes on Figure 4-1:**

- The total number of SFN citizens declined slightly between 2006 and 2011 before growing significantly from 2011 to 2013.
- The total population of SFN citizens has been relatively constant since 2012.

Figure 4-2 shows the population of SFN citizens by place of residence. Data is not available for 2015 as these records were lost due to a technical issue, but are expected for future reports.

**Figure 4-2. Population of SFN Citizens by Place of Residence: 2006, 2011 and 2014**



Source: Selkirk First Nation Administration

**Notes on Figure 4-2:**

- The number of SFN citizens living in Pelly Crossing has increased from 242 to 304 between 2006 and 2014. Approximately 70% of SFN citizens live in Yukon and 30% live elsewhere in Canada.
- Overall, just under half of SFN citizens live in Pelly Crossing; approximately 20% live in Whitehorse.



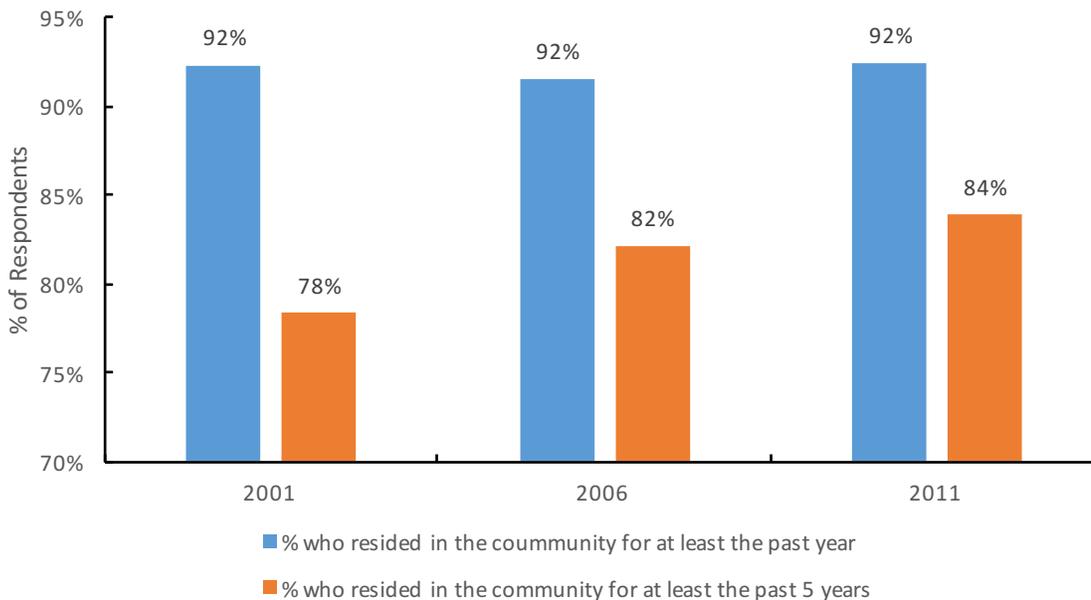
SFN Elders Lizzie Hall and Rachel TomTom Making Babiche at May Gathering

PHOTO: SELKIRK FIRST NATION

### 4.1.2 Indicator #2 Duration of Residency

The duration or length of residency is an indicator of the strength of individual and family ties to the community. It can also be an indicator of economic satisfaction. Figure 4-3 shows the percentage of Pelly Crossing residents who had reported living in the community for at least one year and for at least five years at the time of the Census in 2001 and 2006, and the NHS in 2011. As part of the 2015 SFN Household Survey, respondents were asked if they had, over the past five years, moved from one community to another. While 79% indicated that they had not moved (a lower percentage than reported in the 2011 Census), this has not been included in Figure 4-3 as the two data sources (Census 2015 SFN Household Survey) are not directly comparable.

**Figure 4-3. Percent of Pelly Crossing Residents Who Resided in the Community for At Least One Year and At Least Five Years Before the Census/NHS: 2001, 2006 and 2011**



Source: Census 2001, Cumulative Profile; Statistics Canada; 2006 Census Catalogue no. 94-578-XCB2006002; 2011 NHS Semi-custom profile NHS2011\_Cyan\_PR\_CD\_CSD\_DA

**Notes on Figure 4-3:**

- The percentages shown include both those who reported living at the same address one year or five years prior (non-movers) and those who reported having changed addresses but still lived in the community (non-migrant movers).
- The one-year stability rate in Pelly Crossing has remained consistent, with 92% of residents not having moved into or out of the community in the year prior to the Census or National Household Survey.
- There is a clear upward trend in the five-year stability rate, with a higher percentage of residents reporting living in the community for at least five years. This indicates a more stable population in the community.
- For 2011, Yukon’s one-year stability rate (93%) was almost identical to that of Pelly Crossing (92%). Yukon’s five-year stability rate (78%) was lower than that of Pelly Crossing (84%).

### 4.1.3 Indicator #3 Net Migration

The rate of net migration to Pelly Crossing potentially affects institutional and family stability within the community. There are no regularly published data to assess net migration. YBS carried out a one-time Yukon Migration Pattern study in 2010<sup>10</sup> and found that between 2005 and 2010, 114 people migrated into Pelly Crossing and 70 people migrated out, resulting in a net in-migration of 44 people, or approximately nine people per year.

YBS maintains estimates of Yukon community populations by the number of people who report a permanent address in that community on their healthcare cards (see Figure 4-4).

**Figure 4-4. Population of Pelly Crossing: 1998-2015**



Source: Yukon Bureau of Statistics Annual Reports, Health Care population statistics

**Notes on Figure 4-4:**

- A population trend is not necessarily a reflection of migration as other factors such as births and deaths may play a more significant role.
- The population of Pelly Crossing has increased by 35% since 1998, with annual variability.
- For the ten-year period between 1998 and 2007, the population was relatively flat, with little variability of about a mean of 286. From 2007, there is a general upward trend, with increases in all years except 2011 and 2015.

<sup>10</sup> See [www.eco.gov.yk.ca/stats/pdf/MigrationPatterns2010.pdf](http://www.eco.gov.yk.ca/stats/pdf/MigrationPatterns2010.pdf).

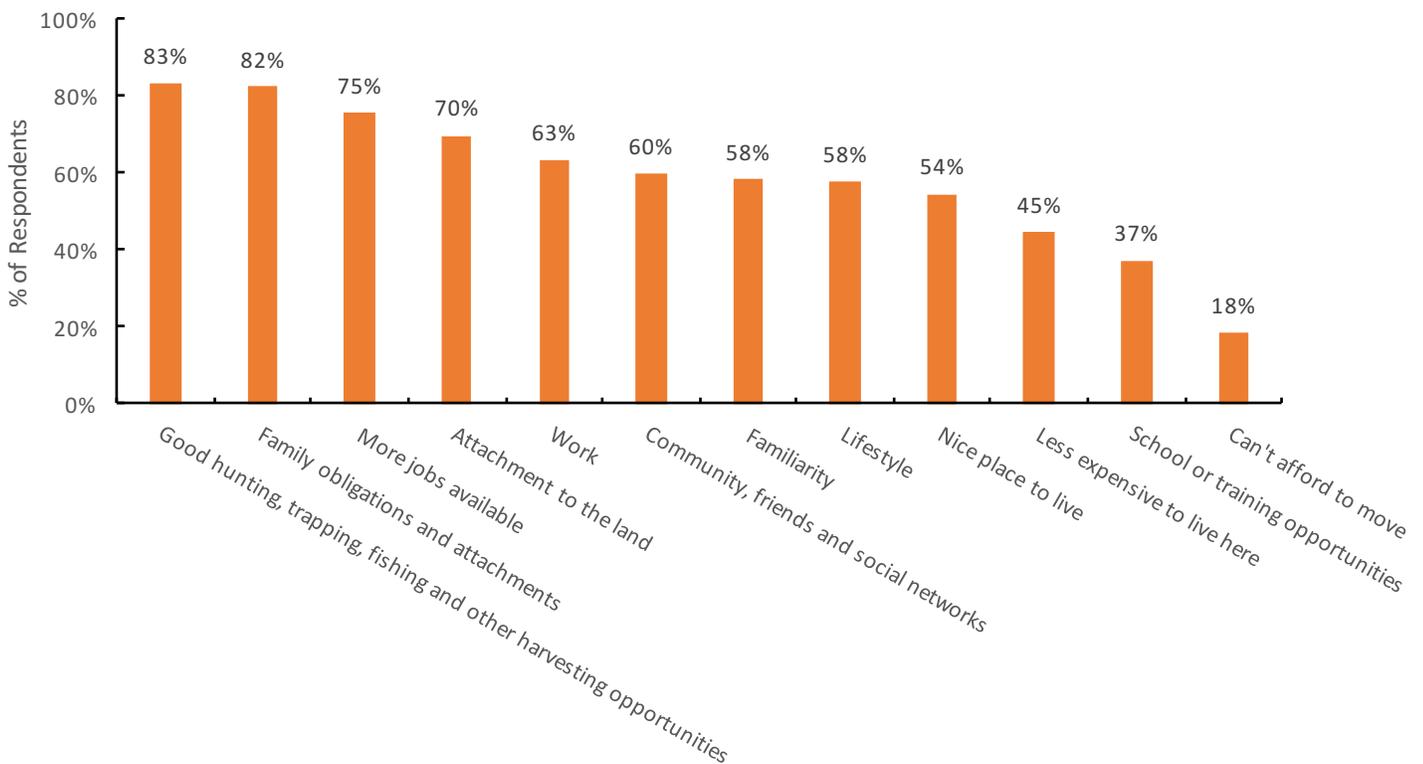
### 4.1.4 Indicator #4 SFN Reasons for Staying within Pelly Crossing

Reasons for staying in a community are an indicator of the relative value and perceived condition of certain socio-economic and cultural factors that tie people to a community and that contribute to its overall stability. A total of 271 households participated in the 2015 SFN Household Survey. These included SFN citizens living in the following communities:

- Mayo (10 households, or 4% of respondents);
- Pelly Crossing (191 households, or 70% of respondents);
- Whitehorse (62 households, or 23% of respondents); and
- Other areas of Yukon (8 households, or 3% of respondents).

The reasons given by SFN citizens for staying in Pelly Crossing are provided in Figure 4-5. It should be noted that the responses are not mutually exclusive (i.e. respondents had the opportunity to select all the main reasons that were applicable to them). In summary, the three main reasons for staying are: connections to the land and ability to practice traditional activities; jobs/economic opportunities; and family/social attachments.

**Figure 4-5. Reasons Given by SFN Citizens for Staying Within Pelly Crossing: 2015**



Source: 2015 Selkirk First Nation Household Survey of Living Conditions

**Notes on Figure 4-5:**

- The top five reasons cited by SFN citizens from Pelly Crossing for staying within their community are: 'Good hunting, trapping, fishing and other harvesting opportunities' (83%); 'Family obligations and attachments' (82%); 'More jobs available' (75%); 'Attachment to the land' (70%); and, Work (63%).

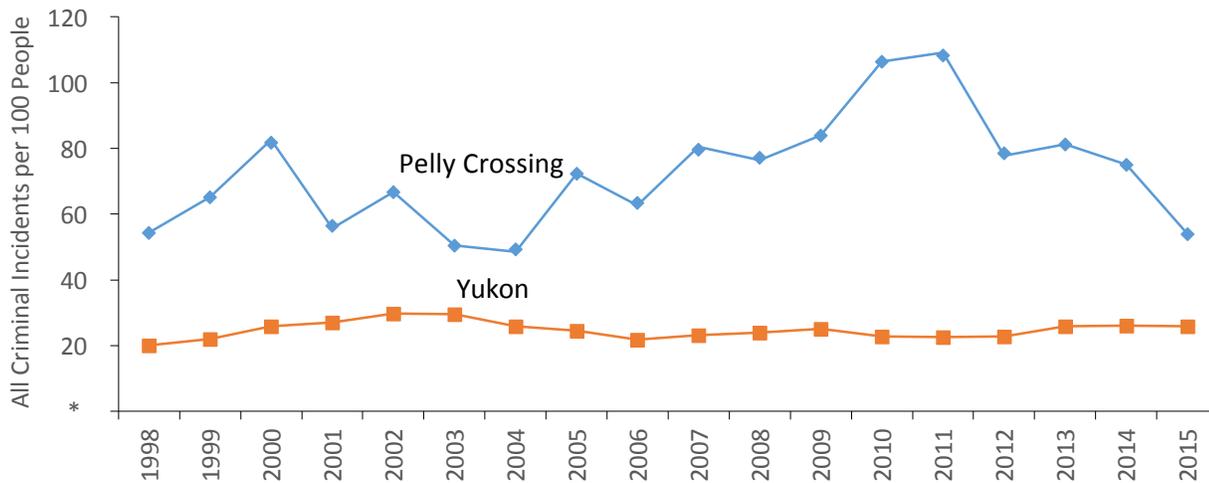
### 4.1.5 Indicator #5 Crime Severity

The rates of both violent and non-violent crime are indicators of a community's overall well-being. A high crime rate — or even the perception that there is a lot of crime — reduces feelings of safety and well-being. Figure 4-6 shows the rate of all reported criminal incidents for Pelly Crossing and Yukon per 100 people from 1998 through 2015. Figure 4-7 shows the rate of all reported violent criminal incidents for Pelly Crossing and Yukon per 100 people over the same period.

The data shown include Criminal Code traffic violations, federal statute violations, property crime, violent crime and other Criminal Code violations. Because of their low population numbers, small communities can show large changes in per-capita crime rates from the behaviour of a small number of individuals. For example, in Pelly Crossing in 2013 there were 80 reported incidents of mischief, for which three individuals were charged. These 80 incidents were 28% of all reported criminal incidents that year in the community. Another factor that can significantly influence reported crime rates in small communities is the relationship between the community and the police officers stationed there.

The 2015 SFN Household Survey specifically asked respondents about their perceptions of safety, over the past five years. The Survey results indicate that 64% of respondents who lived in Pelly Crossing felt the community to be as safe as it had been five years earlier. While 15% of respondents reported that they felt Pelly Crossing to be less safe than it was five years earlier, over 19% of respondents reported they felt Pelly Crossing to be safer than it was five years earlier.

**Figure 4-6. Rate of all Criminal Incidents per 100 People, Pelly Crossing and Yukon: 1998-2015**

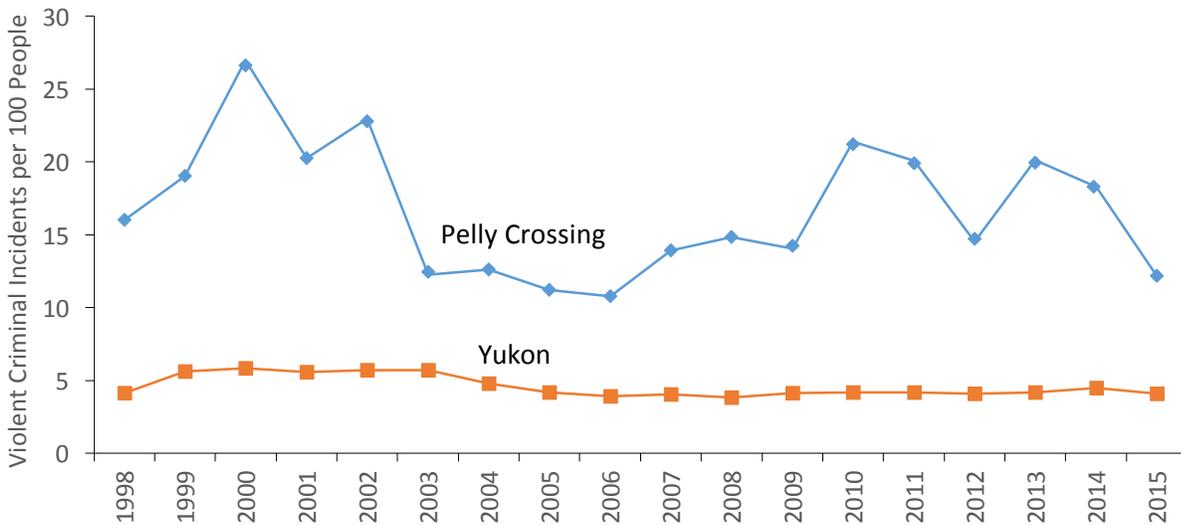


Source: Statistics Canada CANSIM Table 252-0082 for all criminal incidents recorded by RCMP, adjusted by annual population from Yukon Bureau of Statistics Annual Reports

**Notes on Figure 4-6:**

- On average, the rate of reported criminal incidents per 100 people in Pelly Crossing has been three times higher than for Yukon as a whole.

**Figure 4-7. Rate of Violent Crime Incidents per 100 People, Pelly Crossing and Yukon: 1998-2015**



Source: Statistics Canada CANSIM Table 252-0082 for all violent criminal incidents recorded by RCMP, adjusted by annual population from Yukon Bureau of Statistics Annual Reports.

**Notes on Figure 4-7:**

- According to Statistics Canada, a violent offence generally indicates a violation of the law that has included the use of aggressive action (with the intent to do harm) or threat of such action by one person against another.
- The overall trend for the rate of reported violent criminal incidents in Pelly Crossing has been both positive and negative over the period from 1998 to 2015, with large swings in the rate over those 18 years.
- The overall trend in Yukon has been largely flat.
- On average, the rate of reported violent criminal incidents in Pelly Crossing has been approximately four times higher than the rate for Yukon as a whole.

## 4.2 Family Stability and Well-being

This section presents the available data for Indicator #6 (Family structure), Indicator #8 (Family violence) and Indicator #9 (Frequency of household moves in the last five years).

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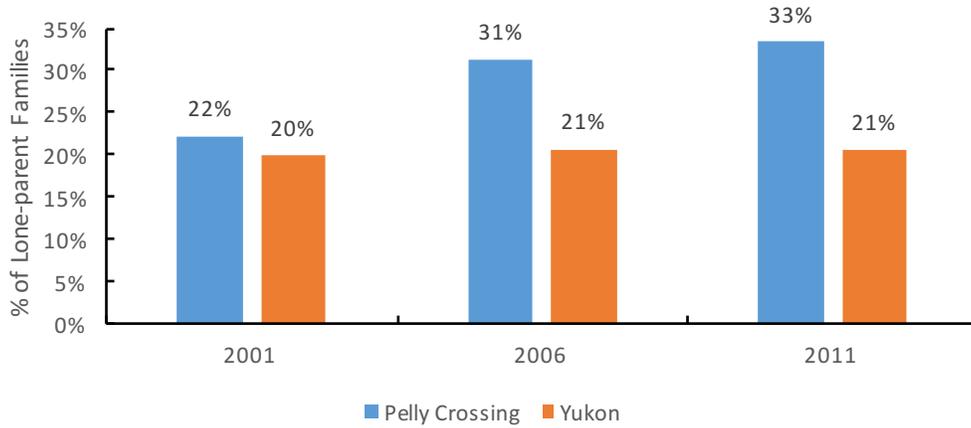
### 4.2.1 Indicator #6 Family Structure

Family membership and frequency of time spent together reflects relative cohesion and therefore, stability and well-being. Cohesive families can come in many forms. An increasing proportion of lone-parent families may indicate declining cohesion and less internal support in family structure.

Figure 4-8 shows the proportion of lone-parent families (defined by Statistics Canada as a lone parent with at least one child living at home) to all families (couples with or without children living at home) for Pelly Crossing and Yukon in the census years of 2001 and 2006 and the NHS year of 2011.

The 2015 SFN Household Survey indicated 20% of households have only one adult. This should not necessarily be interpreted as lone-parent families as it could include adult individuals living alone. The SFN Household Survey also indicated that of all SFN citizens surveyed (including those that resided in Pelly Crossing), nearly 61% lived in a household without children. Eighteen percent of households had only one child, 13% of households had two and slightly less than 8% of households had three to six. Although this statistic does not directly provide data on Pelly Crossing, it is noted that 70% of households surveyed lived in Pelly Crossing.

**Figure 4-8. Proportion of Lone-parent Families, Pelly Crossing and Yukon: 2001, 2006 and 2011**



Source: Statistics Canada 2001 Census Catalogue no. 95F0181XDB96001; 2006 Census Catalogue no. 94-578-XCB2006002; 2011 NHS Semi-custom profile NHS2011\_Can\_PR\_CD\_CSD\_DA

**Notes on Figure 4-8:**

- It is noted that the chart above has not been updated (same as the 2014 Report), as it is based on the Census and the 2016 Census data would be available only late in 2017.
- The proportion of lone-parent families increased from 22% to 33% for Pelly Crossing between 2001 and 2011, while for the Yukon population as a whole it was unchanged.
- The 2015 SFN Household Survey indicated that the number of households with only one adult was 20.3%. However, this should not be construed as necessarily lone-parent families as it could include adult individuals living alone.
- The 2015 SFN Household Survey indicated that, of all SFN citizens surveyed (including those that resided in Pelly Crossing), nearly 61% said they lived in a household without children. Eighteen percent of households had only one child, 13% of households had two and slightly less than 8% of households had three to six. Although this statistic does not directly provide data on Pelly Crossing, it is also noted that of the total 271 SFN households surveyed, 191 households lived in Pelly Crossing.

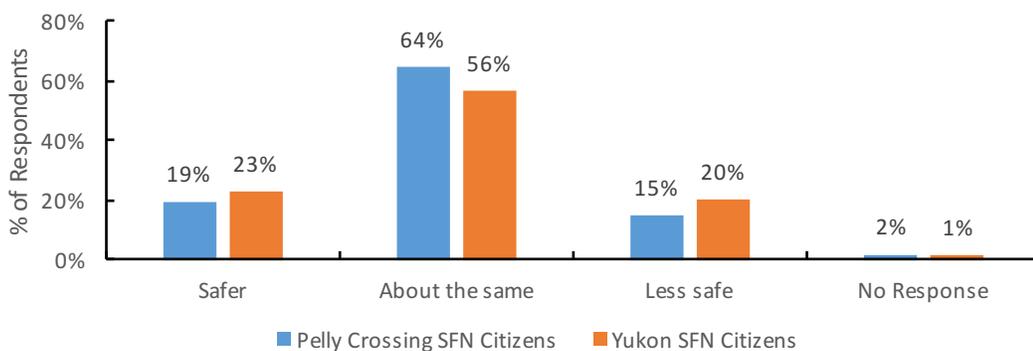
### 4.2.2 Indicator #8 Community Safety

The level of safety experienced by households affects family stability and well-being. The rate of all reported violent crime (family or not family related) for Pelly Crossing and Yukon was provided in Figure 4-7 with the note that in small communities reported crime must be treated with caution.

The 2015 SFN Household Survey asked respondents about their perceptions of safety, over the past five years. Figure 4-9 shows the perception of neighbourhood safety (current vs past five years) among SFN citizens in 2015.

According to the 2015 SFN Household Survey results, only 10% of Pelly Crossing SFN citizens indicated that they were concerned about violence or threats in the area, and only 9% indicated that they were threatened or felt unsafe where they currently lived or stayed. However, about 26% of Pelly Crossing SFN citizens reported that they have had things stolen where they currently lived or stayed.

**Figure 4-9. Comparative Perception of Neighbourhood Safety Among SFN Citizens: 2015 vs Past Five Years**

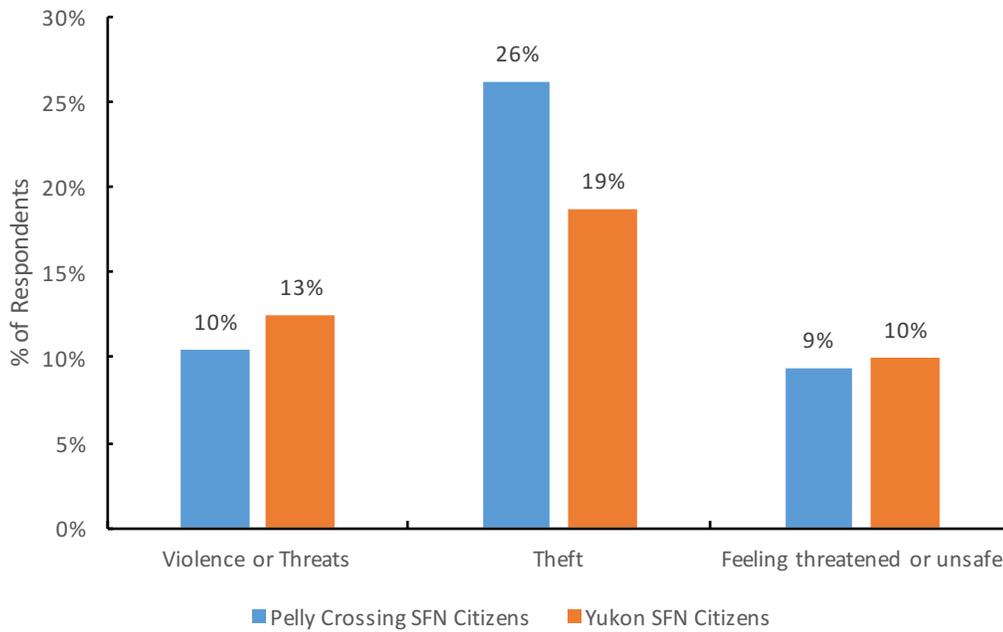


Source: 2015 Selkirk First Nation Household Survey of Living Conditions

**Notes on Figure 4-9:**

- The majority of SFN citizens perceived their neighbourhoods to be as safe as it was five years earlier.
- About a fifth of Pelly Crossing SFN citizens perceived their neighbourhood to be safer than it was five years earlier, while 15% of Pelly Crossing SFN citizens perceived their neighbourhood to be less safe than it was five years earlier.

**Figure 4-10. Concerns Regarding Neighbourhood Safety Among SFN Citizens in 2015**



Source: 2015 Selkirk First Nation Household Survey of Living Conditions

**Notes on Figure 4-10:**

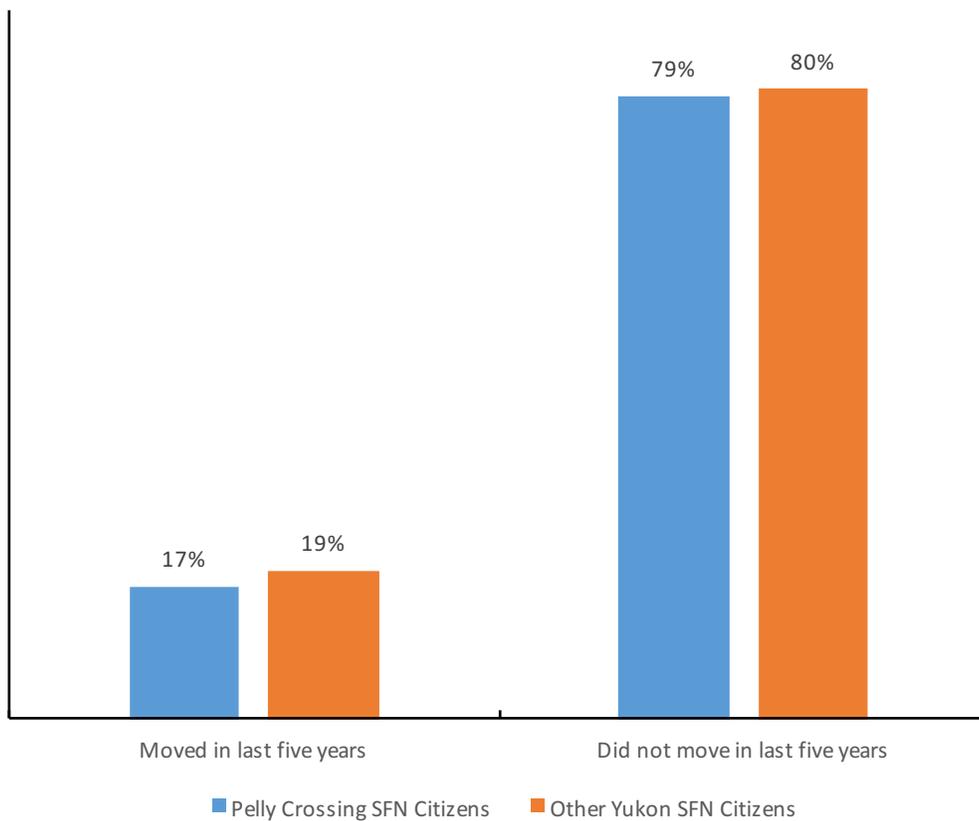
- Just over a quarter of Pelly Crossing SFN citizens reported theft to be the most concerning neighbourhood safety issue.
- Violence or threats were perceived to be pressing issues related to neighbourhood safety by 10% of Pelly Crossing SFN citizens and a similar proportion of Pelly Crossing SFN citizens reported feeling unsafe or threatened in their neighbourhoods.

### 4.2.3 Indicator #9

#### Frequency of Household Moves in the Last Five Years and Reasons

Frequency of household moves offers insights into socio-economic stability and can reflect ties to community, family stability and stress. The 2015 SFN Household Survey inquired about citizens moving in the last five years. The reasons for those moves establishes the relative significance and perceived conditions of certain socio-economic and cultural factors that contribute to decisions to move elsewhere and life choices affecting residency.

**Figure 4-11. Percent of SFN Citizens Who Moved in the Last Five Years: 2015**



Source: 2015 Selkirk First Nation Household Survey of Living Conditions

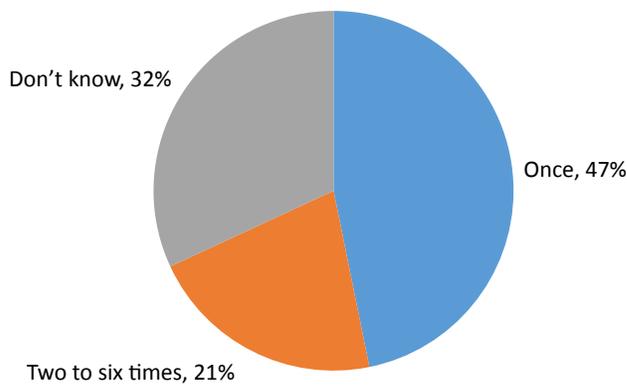
**Notes on Figure 4-11:**

- About 80% of SFN citizens, both from Pelly Crossing and from other parts of Yukon indicated that they had not moved their households in the last five years.

Of the 271 SFN households surveyed in 2015, 47 households indicated that they had moved from one community to another over the past five years. Across all regions and communities, 33 SFN households (or over 70%) that had moved over the past five years did so between one and six times. Twenty SFN households moved out of Pelly Crossing and 17 SFN households moved from Whitehorse in 2015. For Pelly Crossing SFN citizens, the top three reasons for moving were cited as: school or training opportunity (53%), job offer or work requirement (close to 30%), and lack of educational opportunities (21%).

The frequency of movement of SFN citizens that moved in the last five years, the year they moved and the reasons for moving are depicted in Figures 4-12 through 4-14.

**Figure 4-12. Frequency of Movement of SFN Citizens that Moved in the Last Five Years: 2015**

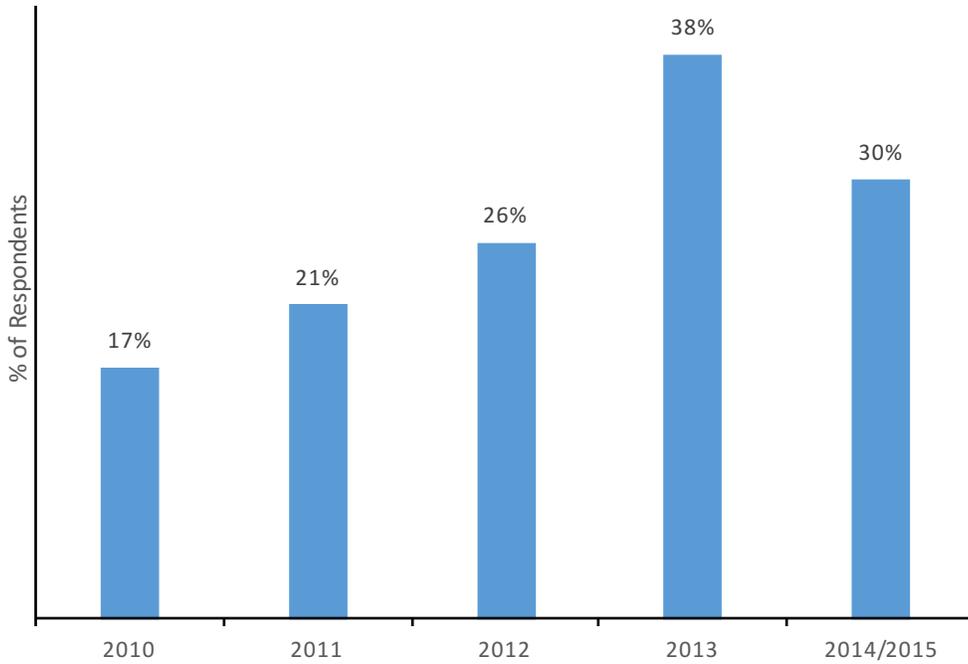


Source: 2015 Selkirk First Nation Household Survey of Living Conditions

**Notes on Figure 4-12:**

- Close to half of all SFN citizens that moved in the last five years did so only once.

**Figure 4-13. Year of Movement of SFN Citizens that Moved in the Last Five Years: 2015**

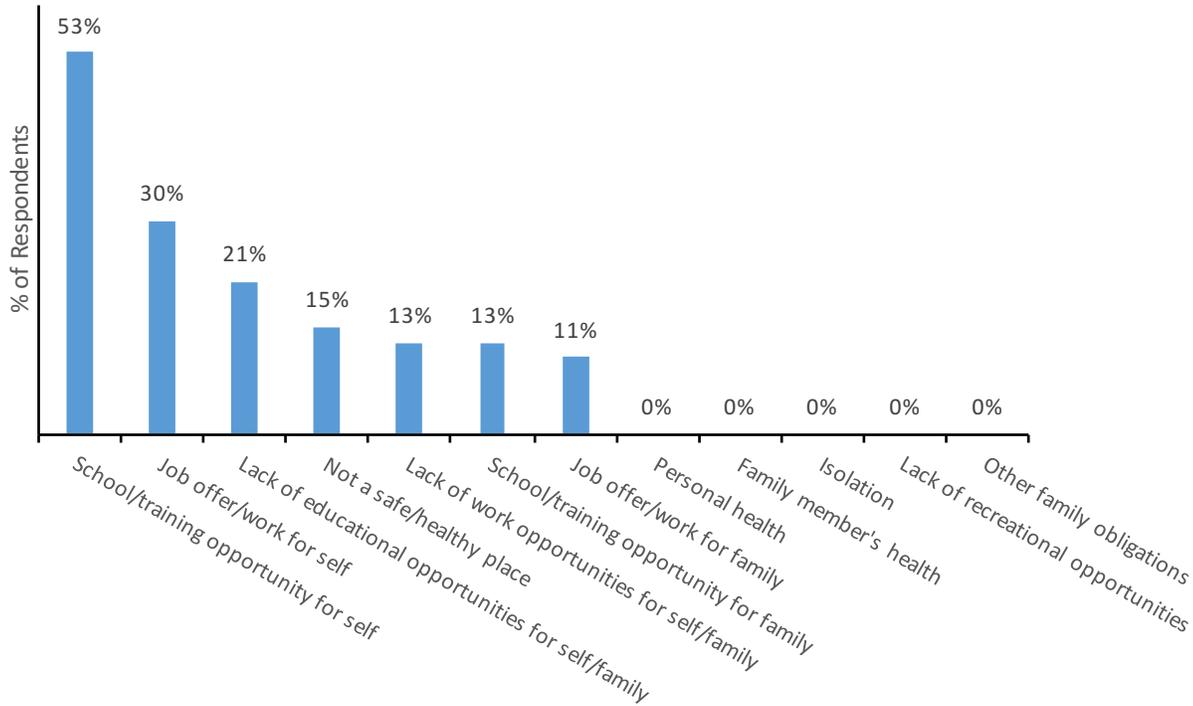


Source: 2015 Selkirk First Nation Household Survey of Living Conditions

**Notes on Figure 4-13:**

- The largest proportion (38%) of SFN citizens that moved in the last five years did so in 2013 and about 30% reported moving during 2014/2015.

**Figure 4-14. Reasons for Movement of Those SFN Citizens that Moved in the Last Five Years: 2015**



Source: 2015 Selkirk First Nation Household Survey of Living Conditions

**Notes on Figure 4-14:**

- Over 83% of all SFN citizens that moved in the last five years reported doing so to seek better opportunities for themselves, either in the form of school/training or for employment.
- Over a fifth of the SFN citizens that moved in the last five years reported doing so because of a lack of educational opportunities for themselves or their family.

## 4.3 Health

This section presents the available data for Indicator #10 (Minto and contractor safety); Indicator #11 (Mental Health); Indicator #12 (Addictions); and Indicator #13 (Physical Health).

### 4.3.1 Indicator #10 Minto and Contractor Safety

Work-related injuries have high costs — in both health and financial terms — for workers and their families, for the employer and for society as a whole. Figure 4-15 shows the total number of Minto Mine safety incidents and the number of lost-time incidents from 2007 to 2015.

**Figure 4-15. Total Minto Mine Safety Incidents and Lost Days Due to Injury: 2007-2015**



Source: Minto Explorations Ltd.

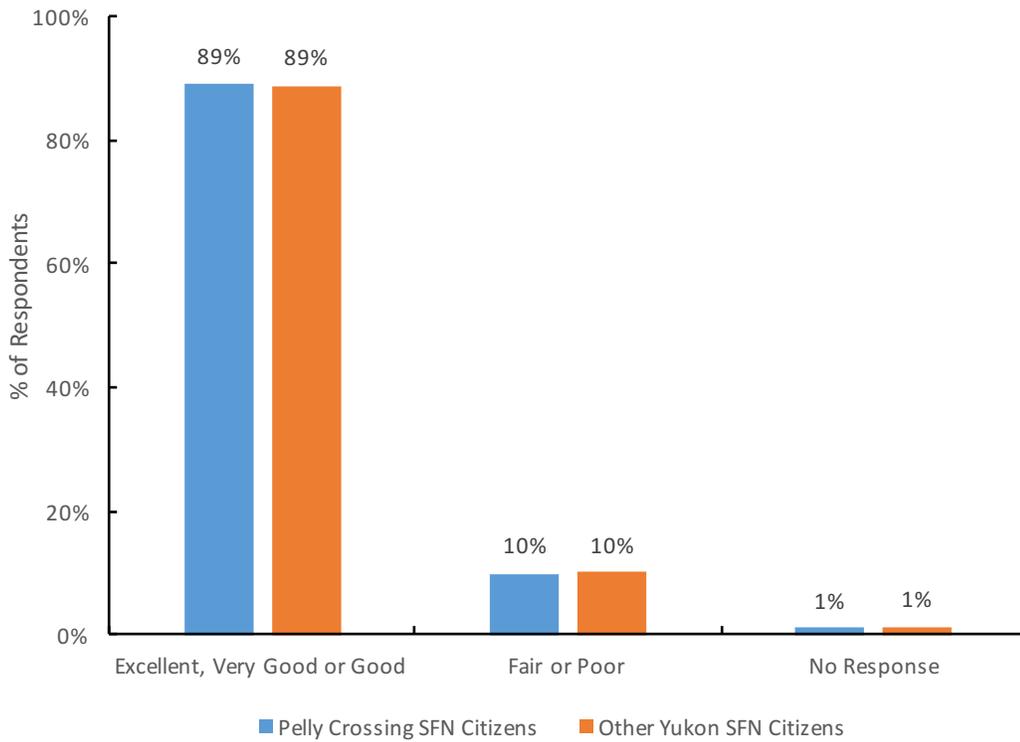
**Notes on Figure 4-15:**

- Lost-time incidents are those that result in a worker missing work beyond the day of the incident as the result of a workplace accident.
- The number of days lost to injury are not available prior to 2011. Data includes Minto and contractor employees.
- There has been an overall downward trend in the number of total safety incidents since 2011. The majority of safety incidents do not result in any lost time.
- Total safety incidents include all forms of incidents, including those that require medical aid (on or off-site) and those that do not. Near-miss incidents — a potential hazard or incident that did not result in injury — are also included in the total.

### 4.3.2 Indicator #11 Mental Health

Self-assessed status of mental health is indicative of a core health condition. This indicator was not part of the 2014 Report. As part of the 2015 SFN Household Survey, respondents were asked about their mental health.

**Figure 4-16. Mental Health of Pelly Crossing and Other Yukon SFN Citizens: 2015**



Source: 2015 Selkirk First Nation Household Survey of Living Conditions

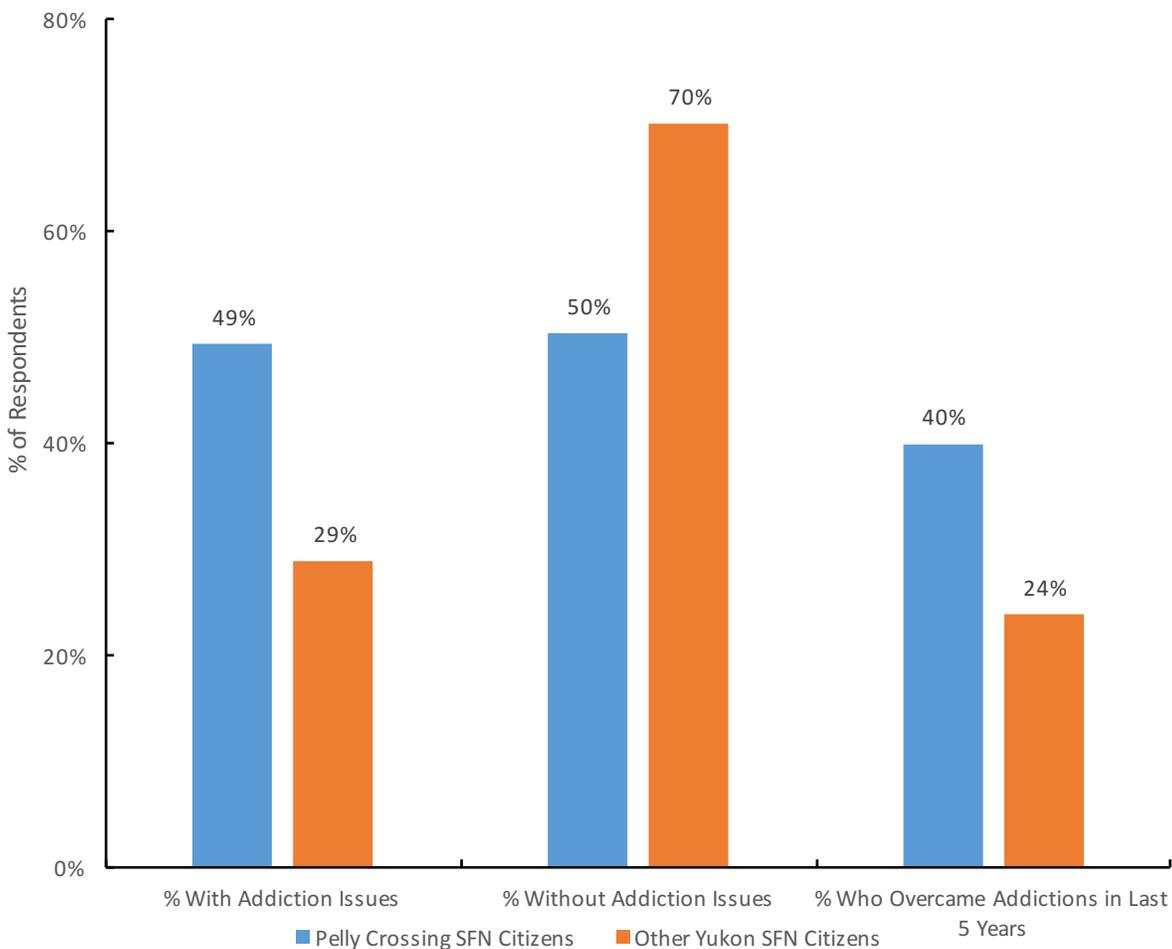
**Notes on Figure 4-16:**

- Close to 90% of SFN citizens (both in Pelly Crossing and Other Yukon) indicated that their mental health was either excellent, very good or good.

### 4.3.3 Indicator #12 Addictions

This indicator measures condition of health by level addiction, reflecting resilience in coping with adverse stressors and affecting labour force participation and employability. As part of the 2015 SFN Household Survey, respondents were asked whether they had any addiction issues they wanted to deal with, such as smoking, alcohol, drugs or gambling.

**Figure 4-17. Addiction Issues of SFN Citizens: 2015**



Source: 2015 Selkirk First Nation Household Survey of Living Conditions

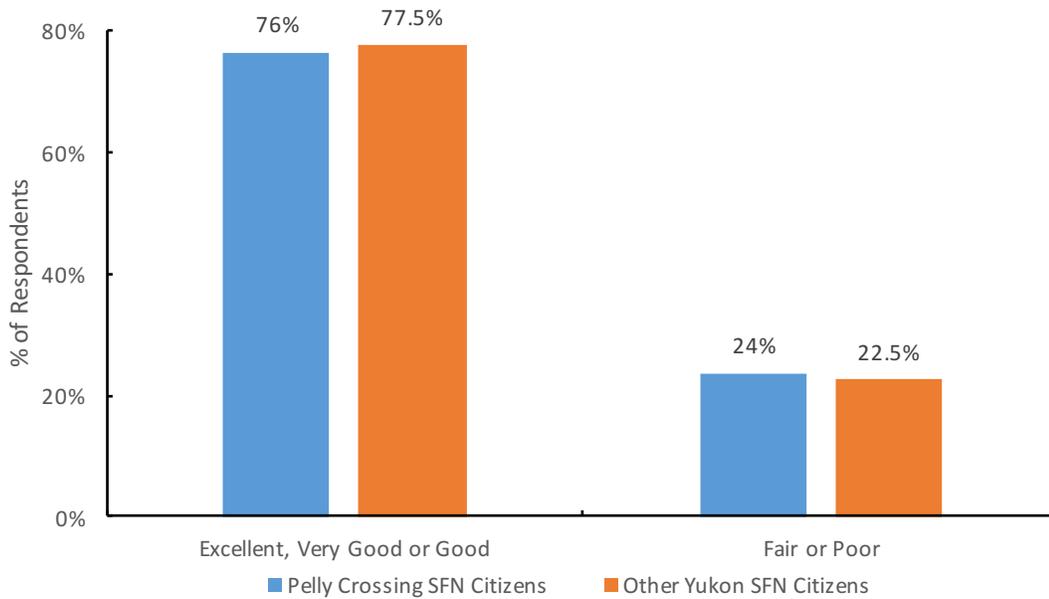
**Notes on Figure 4-17:**

- Over 50% of Pelly Crossing SFN citizens reported that they did not have any addiction issues, while 70% of other Yukon SFN citizens indicated that they did not have any addiction issues.
- While just under half of Pelly Crossing SFN citizens indicated that they had addiction issues, only 29% of other Yukon SFN citizens reported having issues with addiction.
- Just over 49% of Pelly Crossing SFN citizens indicated that they had an addiction issue they wanted to deal with. At the same time, just under 40% of Pelly Crossing SFN citizens indicated that they had overcome their addiction issues in the last five years.
- The leading addictions that SFN citizens reported they had difficulty with were predominantly smoking followed by alcohol.

### 4.3.4 Indicator #13 Physical Health

Self-assessed status of physical health is indicative of general health conditions and well-being. This indicator was not part of the 2014 Report. As part of the 2015 SFN Household Survey, respondents were asked about their physical health and the results are shown in Figure 4-18.

**Figure 4-18. Physical Health of Pelly Crossing SFN Citizens: 2015**



Source: 2015 Selkirk First Nation Household Survey of Living Conditions

**Notes on Figure 4-18:**

- Just over 76% of Pelly Crossing SFN citizens responded that their physical health was excellent, very good or good and 24% of Pelly Crossing SFN citizens responded that their physical health was fair or poor.

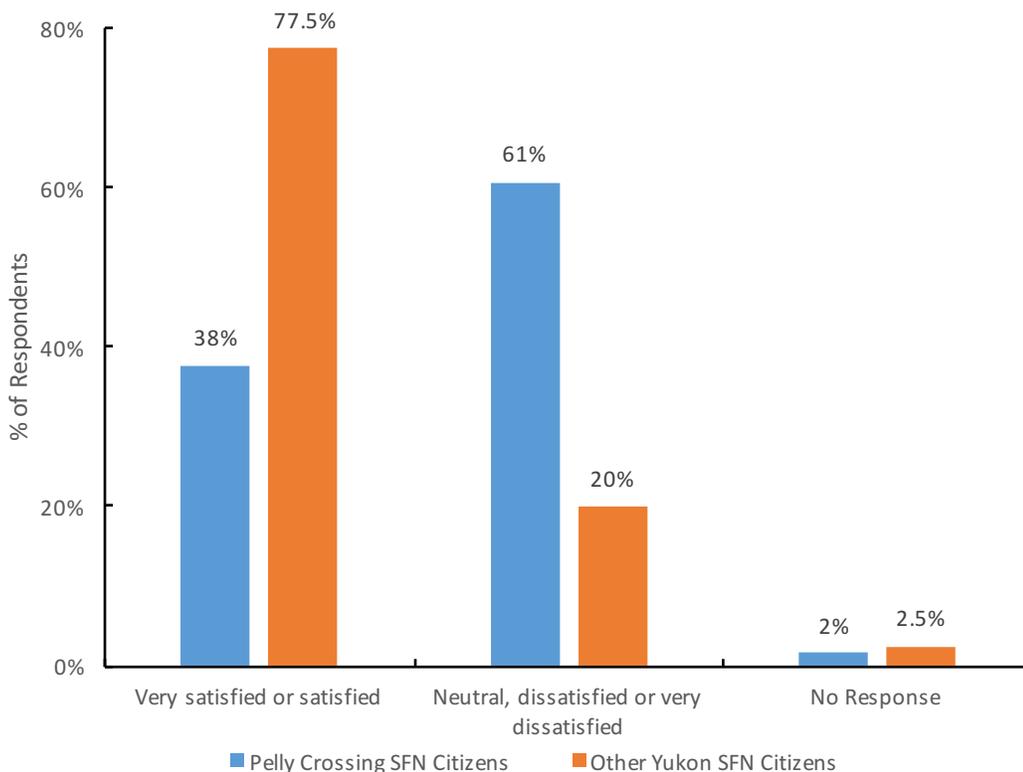
## 4.4 Housing

This section presents the available data for Indicator #14 (Housing satisfaction); Indicator #15 (Housing condition).

### 4.4.1 Indicator #14 Housing Satisfaction

Housing satisfaction is an important indicator of community well-being and is expressed here as an indicator of the perceived suitability, adequacy, availability and quality of housing. This indicator was not part of the 2014 Report. As part of the 2015 SFN Household Survey, respondents were asked about their satisfaction with their housing. Results are shown in Figure 4-19.

**Figure 4-19. Satisfaction of SFN Citizens with Housing: 2015**



Source: 2015 Selkirk First Nation Household Survey of Living Conditions

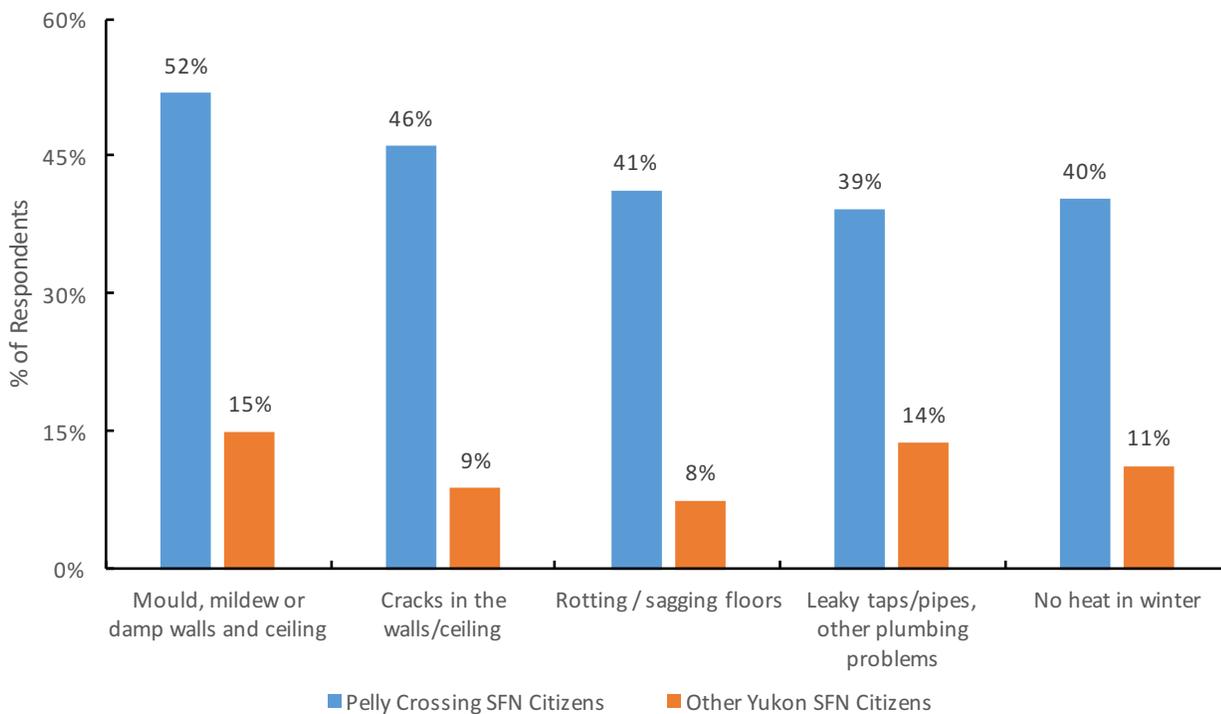
**Notes on Figure 4-19:**

- Only 38% of Pelly Crossing SFN respondents indicated that they were satisfied or very satisfied with their housing, while close to 78% of other Yukon SFN citizens reported being satisfied or very satisfied with their housing.
- A much higher proportion of Pelly Crossing SFN citizens (61%) reported being neutral, dissatisfied or very dissatisfied with their housing when compared to other Yukon SFN citizens (only 20%).

### 4.4.2 Indicator #15 Housing Condition

This indicator reflects the quality of community housing stock and its state of repair. In addition to basic satisfaction, the 2015 SFN Household Survey also asked respondents about their specific housing issues and concerns. Results are shown in Figure 4-20. Figure 4-21 shows the percentage of dwellings requiring major repair as reported by occupants in Pelly Crossing and other parts of Yukon, as part of the 2001 and 2006 Census and the 2011 NHS.

**Figure 4-20. Concerns of SFN Citizens with Housing: 2015**

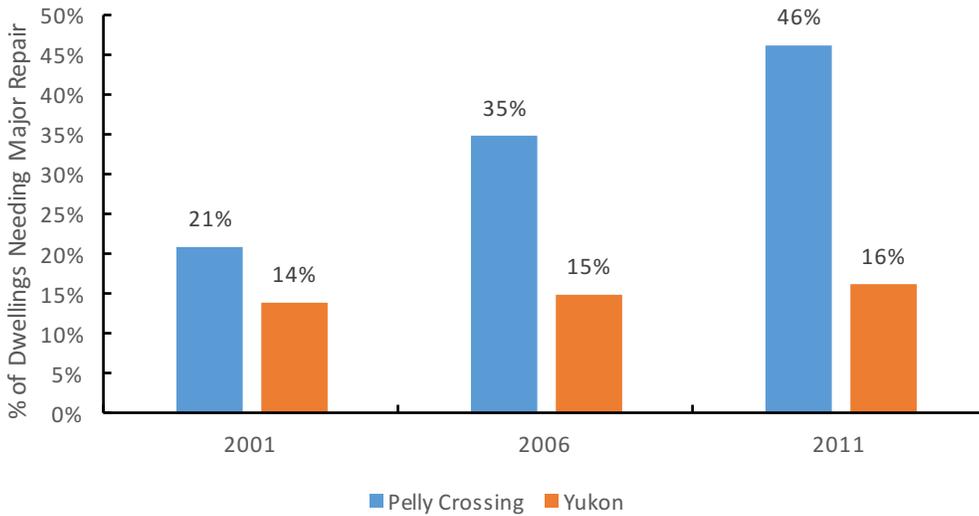


Source: 2015 Selkirk First Nation Household Survey of Living Conditions

**Notes on Figure 4-20:**

- A higher proportion of Pelly Crossing SFN citizens (between 39% and 52%) indicated a variety of housing concerns compared to SFN citizens from other parts of Yukon (8% to 15%).
- Mould, mildew or damp walls and ceilings was reported as the biggest concern by SFN citizens in both Pelly Crossing and other parts of Yukon.

**Figure 4-21. Percent of Dwellings Needing Major Repair as Reported by Occupants, Pelly Crossing and Yukon: 2001, 2006 and 2011**



Source: Statistics Canada 2001 Census Catalogue no. 95F0181XDB96001; 2006 Census Catalogue no. 94-578-XCB2006002; 2011 NHS Semi-custom profile NHS2011\_Can\_PR\_CD\_CSD\_DA

**Notes on Figure 4-21:**

- The trend on occupant-reported need for major repairs on dwellings was almost flat for Yukon as a whole between 2001 and 2011, indicating that the overall condition of the housing stock was neither improving nor deteriorating.
- In Pelly Crossing the trend of occupant-reported need for major repairs on dwellings has risen significantly, a sign that the overall condition of the housing stock may be deteriorating.
- While the apparent increase in the number of dwellings needing repair may be a result of data quality issues in 2011, the findings from the 2011 Census are consistent with the 2015 SFN Household Survey on housing concerns.

## 4.5 Income and Income Distribution

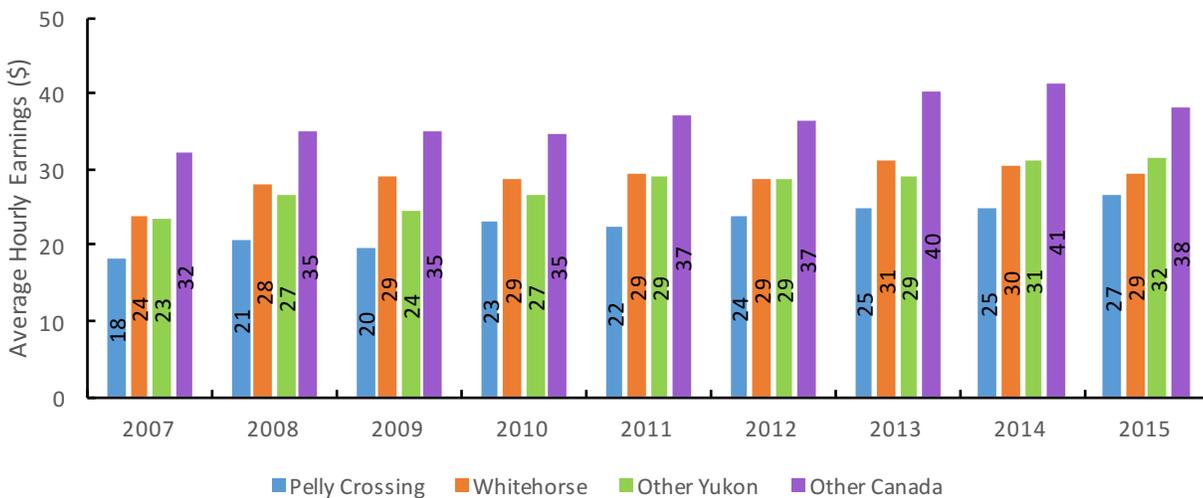
This section presents the available data for Indicator #16 (Average employment income by residency); Indicator #17 (Average employment income by Minto contractors); Indicator #18 (Minto and contractors annual and cumulative total employee income by residency); Indicator #19 (Average and distributed household income, average and distributed personal income); Indicator #21 (Income by source); and Indicator #22 (Number of Social Assistance Cases).

The data categories available (from Minto and its contractors) for Indicators #16, 17 and 18 are not consistent across the various firms. The place of residence for employees for Indicators #16, 17 and 18 are exclusive; in other words, residents of Pelly Crossing are not included as residents of Yukon, and residents of Yukon are not included as residents of Canada.

### 4.5.1 Indicator #16 Average Minto Employment Income by Residency

This indicator measures direct income of Minto employees. Figure 4-22 compares average hourly earnings for Minto employees by their place of residence.

Figure 4-22. Average Hourly Earnings (\$) of Minto Employees by Residency: 2007-2015



Source: Minto Explorations Ltd.

#### Notes on Figure 4-22:

- Amounts are unadjusted for seasonal or temporary employment.
- These numbers are influenced by the duration and nature of employment; they do not necessarily reflect the average earnings for a full-time full-year equivalent employee.
- Employees who reside outside Yukon have higher average hourly earnings than those in Yukon; this is likely driven in part by the number of permanent and professional employees who reside outside Yukon.
- Average hourly earnings for Pelly Crossing residents has risen from \$18.19 in 2007 to \$26.51 in 2015, an increase of 46%. Other employees have seen smaller percentage increases (24% increase in the same period for Whitehorse residents, 35% increase for 'Other Yukon' residents and 19% increase for 'Other Canadian' residents), but from higher starting points.

### 4.5.2 Indicator #17

## Average Employment Income by Minto Contractors and Employees by Residency and/or Group

This indicator measures direct income of the major contractors and employees at Minto Mine.

**Figure 4-23. Average Hourly Earnings (\$) of the Surface Mining Contractor Employees at the Minto Mine, by Group and Residency: 2008-2015**

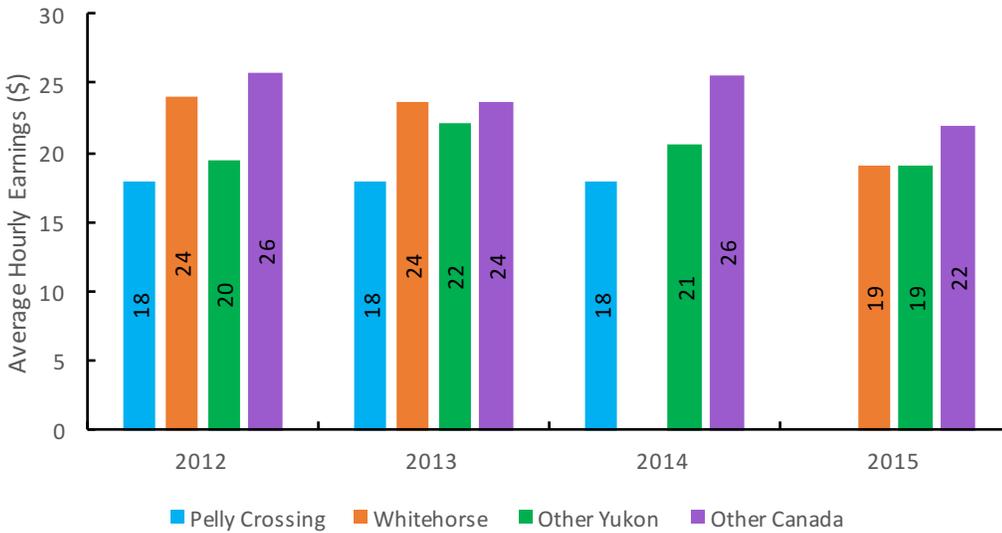


Source: Minto Explorations Ltd.

**Notes on Figure 4-23:**

- The surface mining contractor is a Yukon-based company that is responsible for the open-pit mining at the site.
- The average hourly incomes of SFN Yukon residents have averaged 94% of the average of all others over the period shown.
- All categories of employees have seen approximately the same average increase in hourly wages (14–16%) from 2008 to 2015.

**Figure 4-24. Average Hourly Earnings (\$) of the Underground Mining Contractor Employees at the Minto Mine by Residency: 2012-2015**

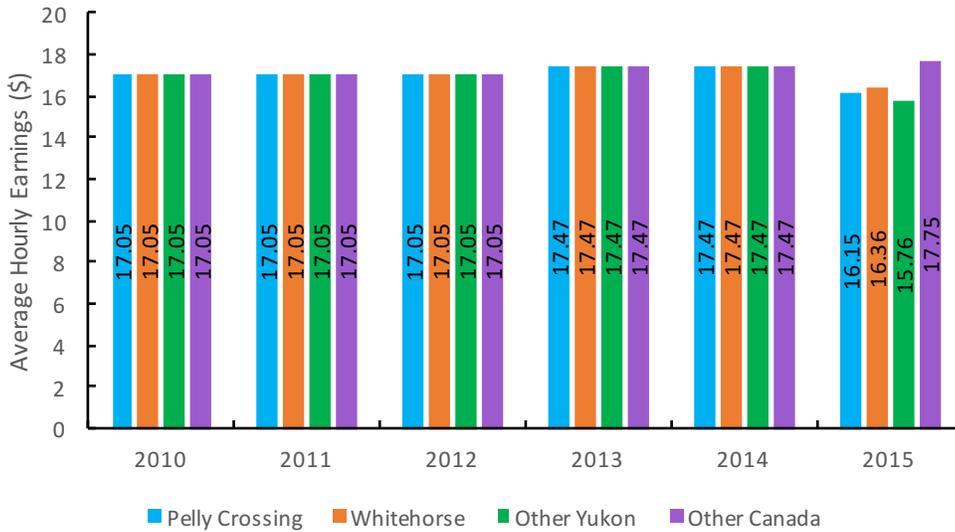


Source: Minto Explorations Ltd.

**Notes on Figure 4-24:**

- In 2014, there were no employees residing in Whitehorse; and in 2015, there were no employees residing in Pelly Crossing.
- Employees residing elsewhere in Canada have generally had higher hourly wages than those residing in Yukon, likely due to having more specialized underground experience.
- Some care must be used in comparing the hourly wages of underground workers with surface or other workers at the mine. Underground workers tend to work more overtime and are usually eligible to earn significant production bonuses. Given these factors, an hourly wage of \$25 can mean an annual gross income of \$125,000.

**Figure 4-25. Average Hourly Earnings (\$) of the Camp Contractor Employees at the Minto Mine by Residency: 2010-2015**



Source: Minto Explorations Ltd.

**Notes on Figure 4-25:**

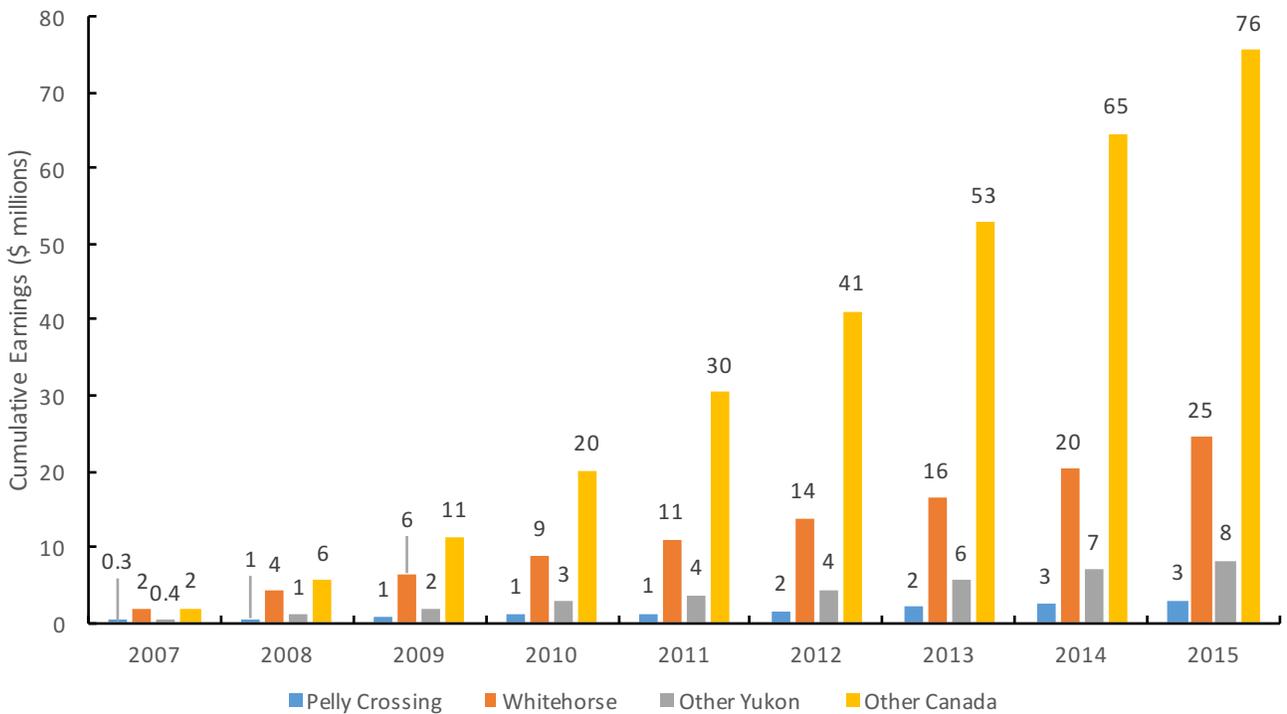
- The camp contractor supplies the food and cleaning services for the camp at the Minto Mine.
- For the period 2010-2014, there was no difference in average hourly wages by residency, indicating that the required skills and experience are being provided by all employees regardless of residency; however, for 2015, there was a small difference in hourly wages based on residency.

### 4.5.3 Indicator #18

## Minto and Contractors' Cumulative Total Annual Employee Income by Residency or Group

Indicator #18 is intended to measure both the direct and cumulative impacts of employment income by residency — Yukon and non-Yukon, with some details on residents of Pelly Crossing and/or SFN — for Minto and its major contractors.

**Figure 4-26. Cumulative Earnings (\$ millions) of Employees of Minto, by Residency: 2007-2015**

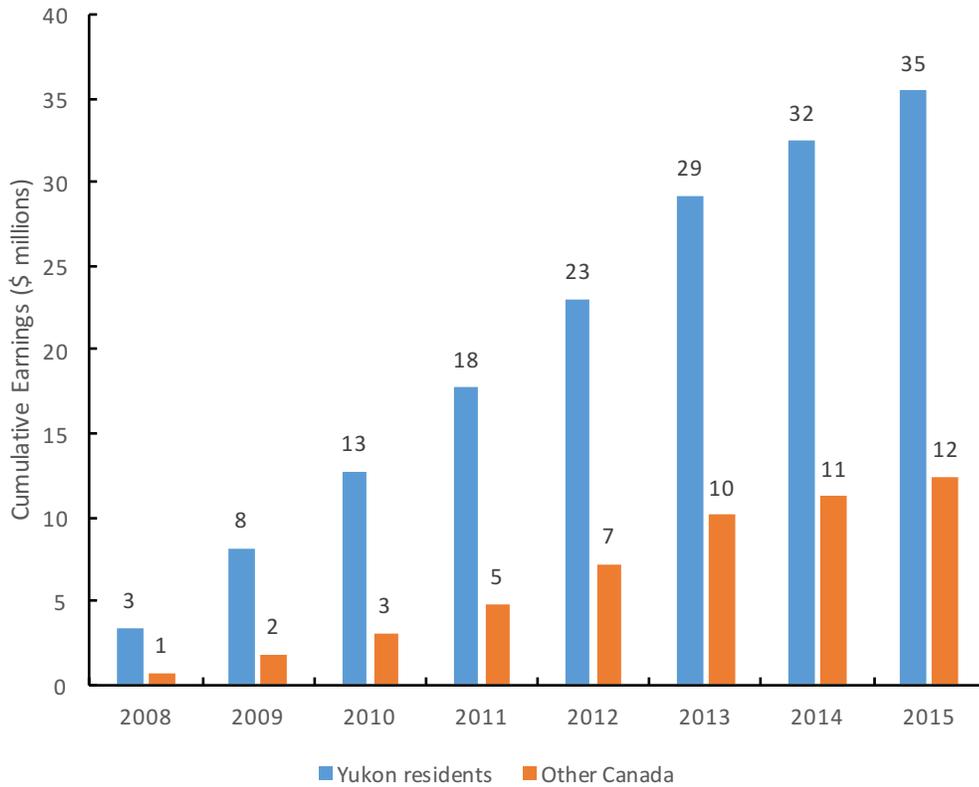


Source: Minto Explorations Ltd.

**Notes on Figure 4-26:**

- Employees living outside Yukon account for the majority of the cumulative earnings from Minto, with a total of \$76 million from 2007 to 2015.
- Employees who reside outside Yukon have higher cumulative earnings than those in Yukon, driven in part by the number of permanent and professional employees who reside outside Yukon.
- Source data not reflected in the figure show that Whitehorse residents earned a total of \$25 million from 2007 to 2015, while Yukon residents (apart from Whitehorse and Pelly Crossing) earned \$8 million over the same period.
- Source data also show that Pelly Crossing residents earned a total of \$3 million directly from Minto from 2007 to 2015.

**Figure 4-27. Cumulative Earnings (\$ millions) of Surface Mining Contractor Employees at Minto Mine, by Yukon and Other Canada Residency: 2008-2015**

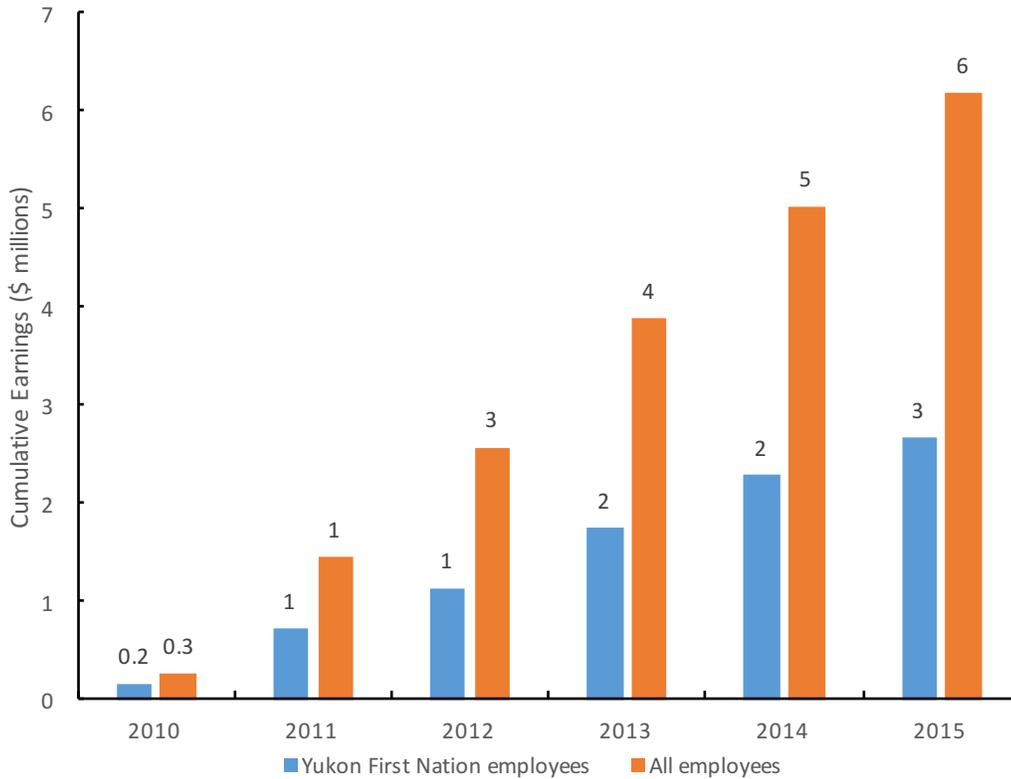


Source: Minto Explorations Ltd.

**Notes on Figure 4-27:**

- The surface-mining contractor is a Yukon-based company and the skills required for surface mining are readily available in Yukon. This is reflected in the majority of its payroll flowing to Yukon residents.
- By the end of 2015, Yukon residents had earned a cumulative \$35.4 million from the surface mining contractor.
- Source data not reflected in the figure show that SFN citizens had earned a cumulative \$2.5 million working for the surface mining contractor from 2008 to 2015.

**Figure 4-28. Cumulative Earnings (\$ millions) of the Camp Contractor Employees at Minto Mine, Yukon First Nations and all Employees: 2008-2015**

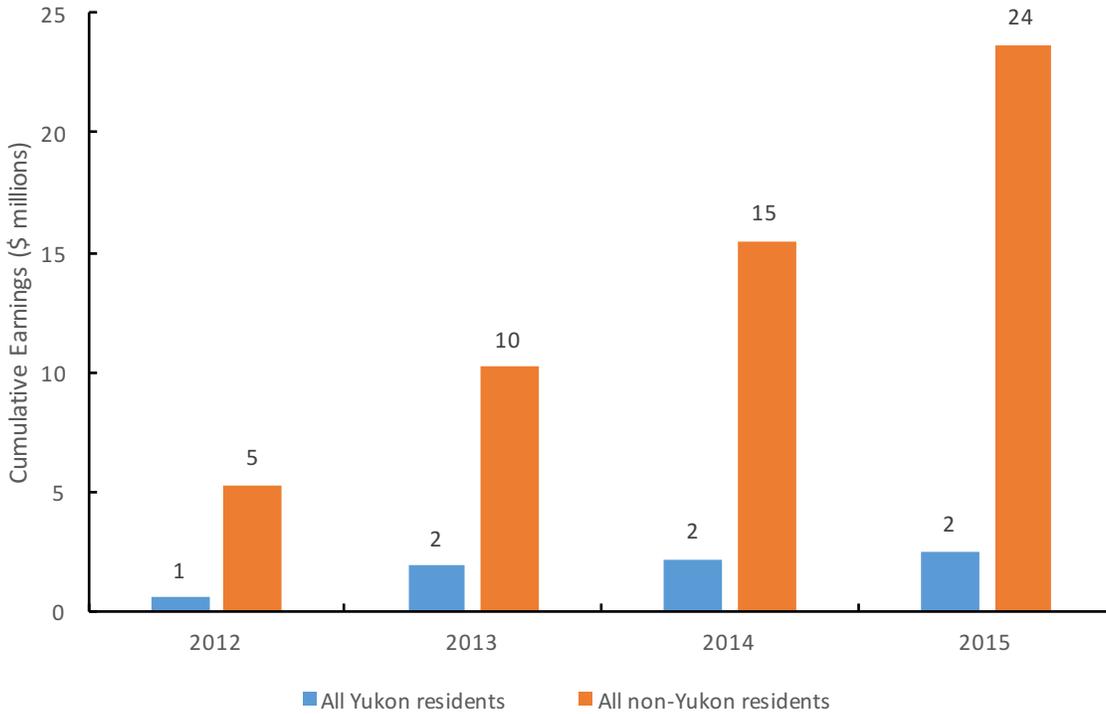


Source: Minto Explorations Ltd.

**Notes on Figure 4-28:**

- For this indicator, the data will be presented by more detailed residency in future reports.
- Yukon First Nations employees of the camp contractor at the Minto Mine have received approximately one half of the total cumulative payroll since 2010.

**Figure 4-29. Cumulative Earnings (\$ millions) of the Underground Mining Contractor Employees at Minto Mine, by Yukon and Other Canada Residency: 2012-2015**



Source: Minto Explorations Ltd.

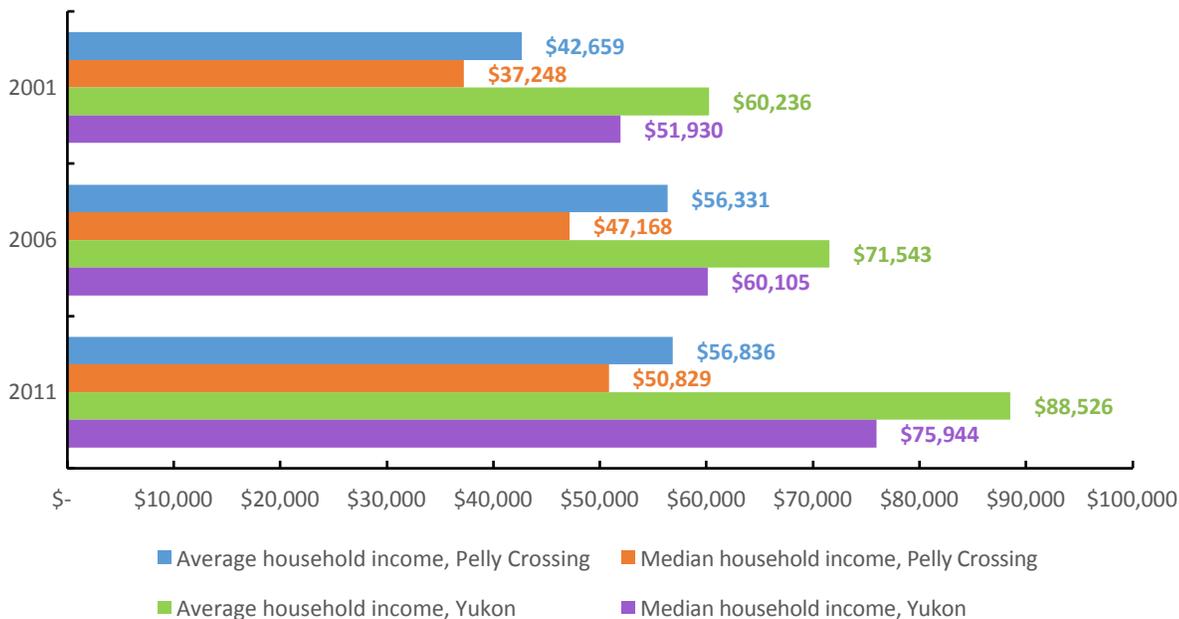
**Notes on Figure 4-29:**

- Almost 90% of the underground contractor’s payroll went to employees who live outside Yukon in 2012 and 2014; in 2013 that dropped to 84%. However, in 2015, close to 97% of the underground contractor’s payroll went to employees who live outside Yukon.
- The underground mining contractor relies heavily on specialized, skilled underground workers from elsewhere in Canada due to the lack of those necessary skills and experience in the Yukon workforce.

### 4.5.4 Indicator #19 Average and Distribution of Household Income

Average household incomes and the distribution of household incomes reflect relative material wealth within the community. Figure 4-30 compares the average and median household incomes in Pelly Crossing with Yukon as a whole. One way of looking at the distribution of household income in a community is to examine the difference between average and median household income. The median is the midpoint where exactly half of all households make more than that amount and half make less. In most communities, average income is higher than median income. A large gap between average income and median income generally indicates a less equal distribution of income. It means that a small number of high-income households are pulling the average income higher.

**Figure 4-30. Average and Median Household Income (\$), Pelly Crossing and Yukon: 2001, 2006 and 2011**



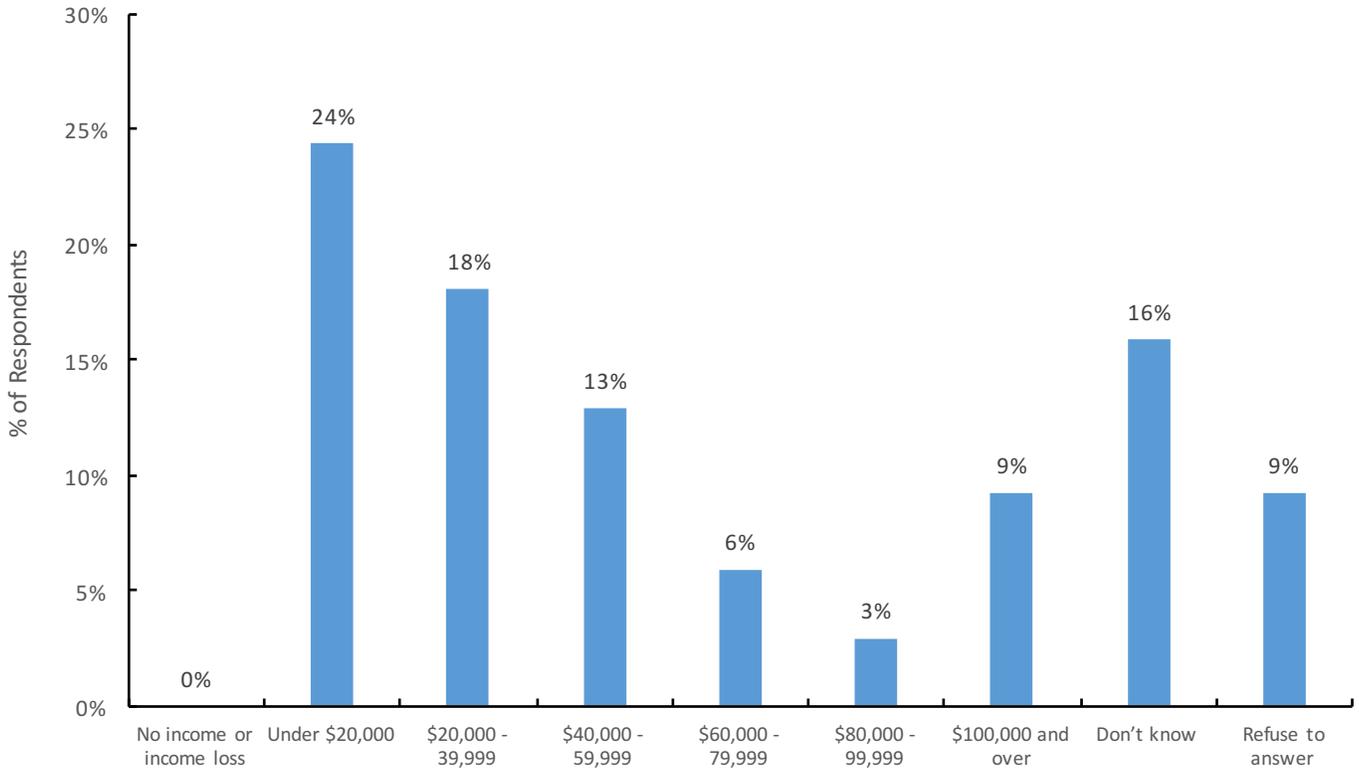
Source: Statistics Canada 2001 Census Catalogue no. 95F0181XDB96001; 2006 Census Catalogue no. 94-578-XCB2006002; 2011 NHS Semi-custom profile NHS2011\_Can\_PR\_CD\_CSD\_DA

**Notes on Figure 4-30:**

- Both average and median household incomes are lower in Pelly Crossing than in Yukon as a whole. Although average household income in Pelly Crossing was lower than that of Yukon, it grew faster than the Yukon average household income between 2001 and 2006 (32% versus 19%).
- The Pelly Crossing median household income for 2011 must be treated with caution. Pelly Crossing had a much lower response rate to the 2011 NHS than Yukon as a whole (see Section 1.3). It is unlikely that median household income in Pelly Crossing remained flat over five years while median household income grew by 26% in Yukon as a whole.

The 2015 SFN Household Survey captured additional information on SFN citizens’ income range for household income, shown in Figure 4-31.

**Figure 4-31. Range of Household Income of all Respondents to the 2015 SFN Household Survey**



Source: 2015 Selkirk First Nation Household Survey of Living Conditions

**Notes on Figure 4-31:**

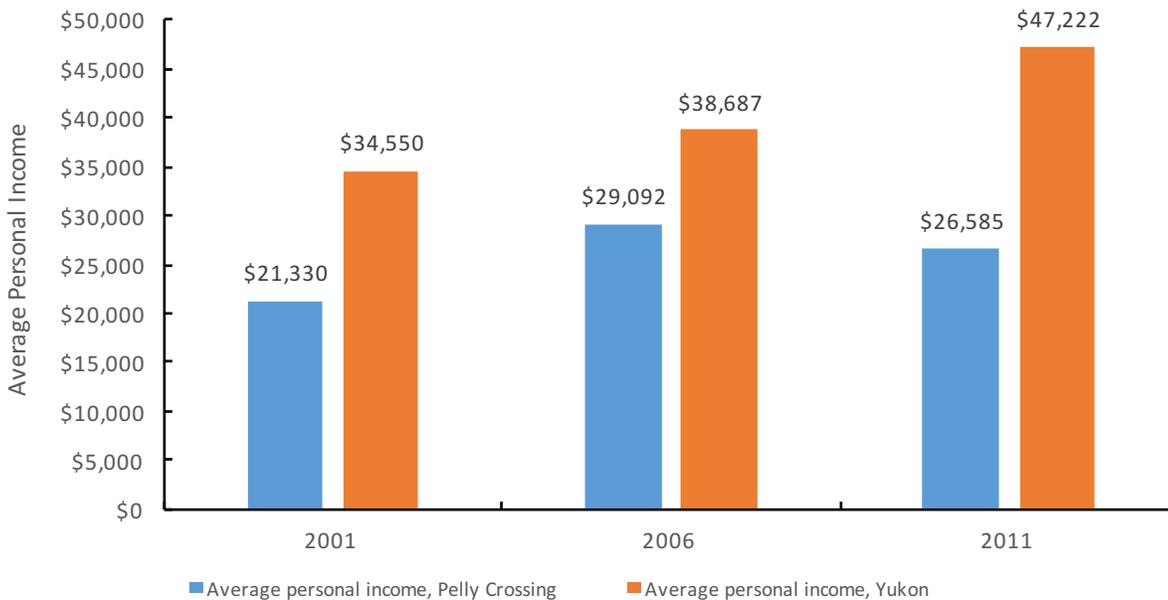
- Data from all sources before taxes at December 31, 2014.
- It is noted that fewer than 5 respondents indicated 'No income or income loss' for their household income and hence this value is represented as 0%.
- The largest portion of the population for household income falls under the annual income of under \$20,000.

### 4.5.5 Indicator #20

#### Average and Distribution of Personal Income of SFN Citizens in Yukon

Indicator #20 reflects relative material wealth within the community, but at the individual rather than the household level. Figure 4-32 shows the average personal incomes for Yukon and Pelly Crossing as reported by the Census in 2001 and 2006 and the 2011 NHS.

**Figure 4-32. Average Personal Incomes, Pelly Crossing and Yukon: 2001, 2006 and 2011**



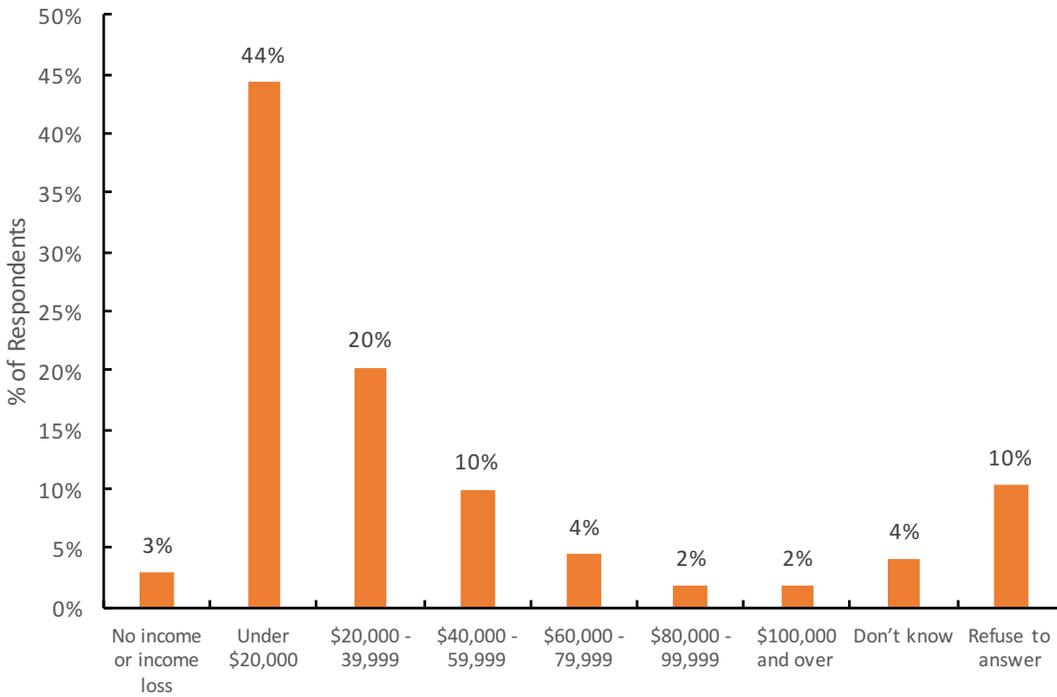
Source: Statistics Canada 2001 Census Catalogue no. 95F0181XDB96001; 2006 Census Catalogue no. 94-578-XCB2006002; 2011 NHS Semi-custom profile NHS2011\_Can\_PR\_CD\_CSD\_DA

**Notes on Figure 4-32:**

- Average personal Yukon income increased by 12% between 2001 and 2006 and then by 22% from 2006 to 2011.
- Average personal income in Pelly Crossing was consistently lower than the Yukon average.
- The 2011 NHS shows average personal income declining in Pelly Crossing in 2011 compared to 2006. The decrease is likely to be the result of a low response rate in Pelly Crossing, rather than an actual decline in income, and is suspect (see Section 1.3 for details).

The 2015 SFN Household Survey captured additional information on SFN citizens’ range of personal income. This is depicted in Figure 4-33 below.

**Figure 4-33. Range of Personal Income of all Yukon SFN Respondents to the 2015 SFN Household Survey**



Source: 2015 Selkirk First Nation Household Survey of Living Conditions

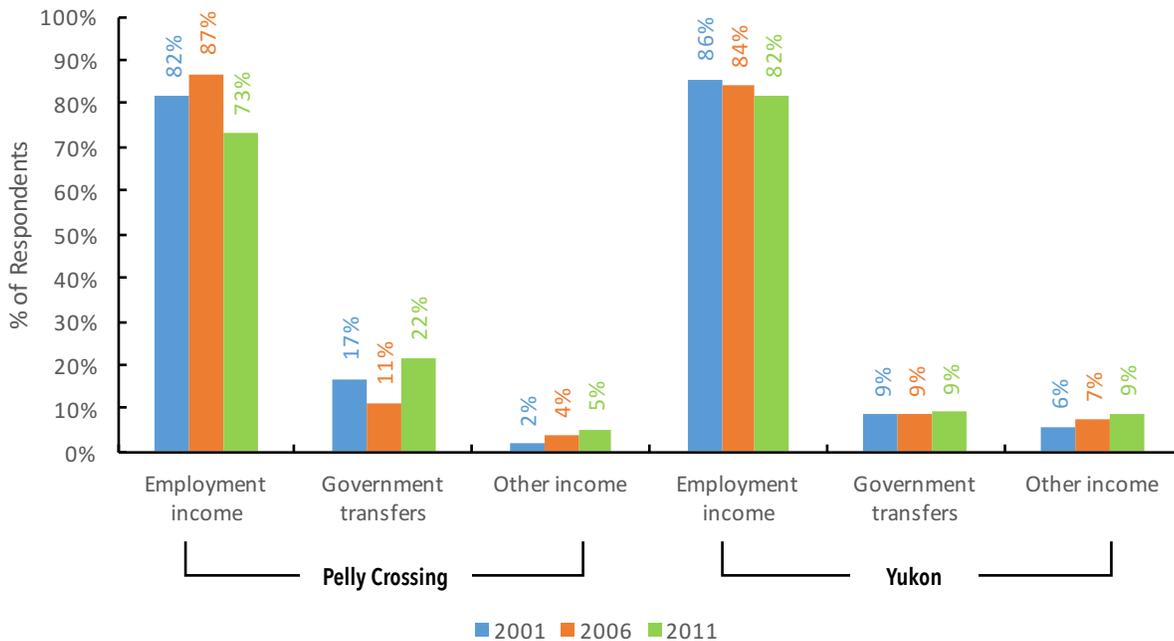
**Notes on Figure 4-33:**

- Data from all sources before taxes on December 31, 2014.
- The largest portion of the population for personal income falls under the annual income of under \$20,000.

### 4.5.6 Indicator #21 Income by Source

This indicator reflects levels of dependency on various income sources within the community. Figure 4-34 shows the breakdown of income by source: employment (including self-employment), government transfers of all kinds (including Canada Pension Plan and Employment Insurance), and all other income (mostly investment income).

**Figure 4-34. Sources of Income of SFN Citizens in Pelly Crossing and Yukon: 2001, 2006 and 2011**



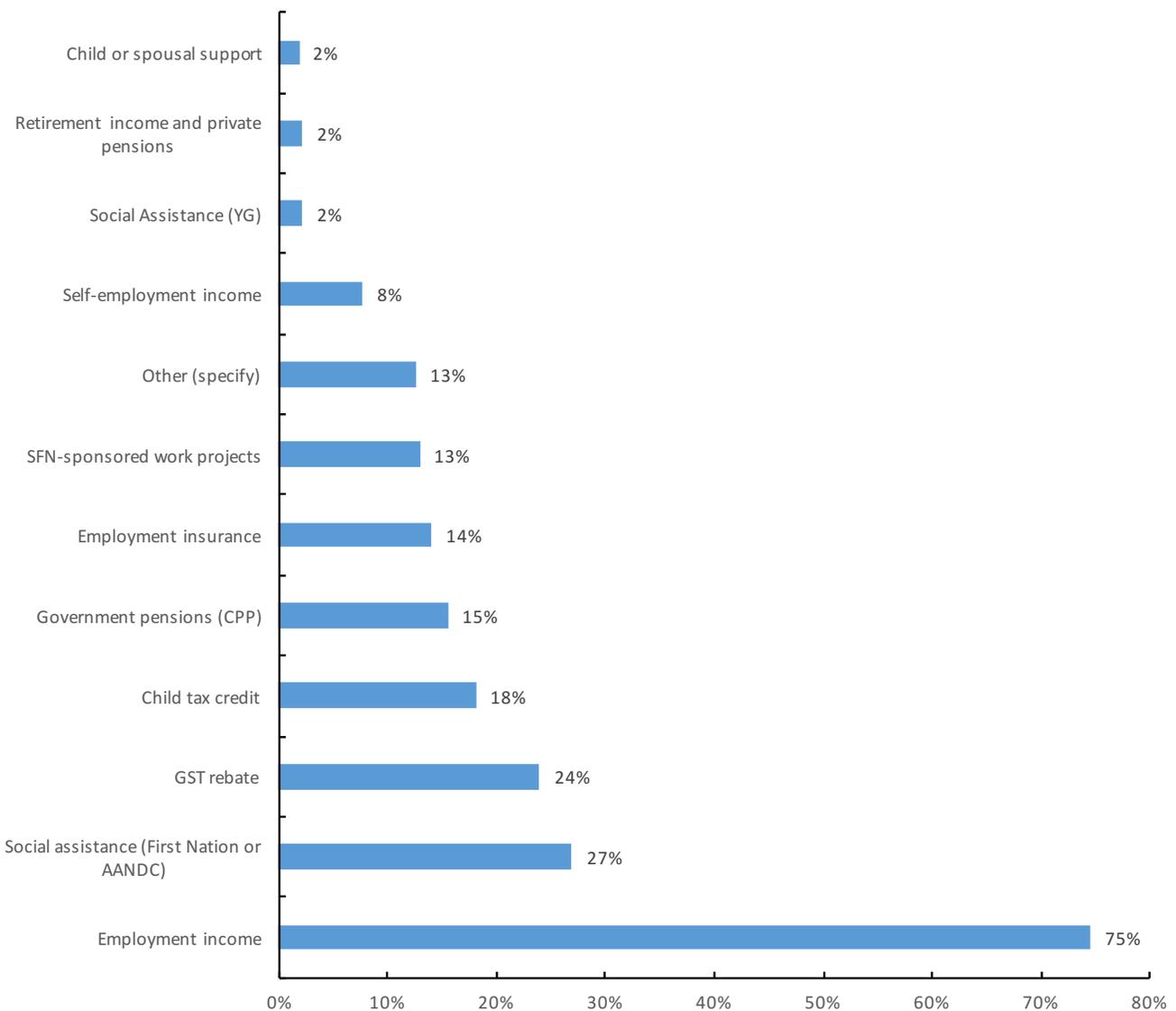
Source: Statistics Canada 2001 Census Catalogue no. 95F0181XDB96001; 2006 Census Catalogue no. 94-578-XCB2006002; 2011 NHS Semi-custom profile NHS2011\_Can\_PR\_CD\_CSD\_DA

**Notes on Figure 4-34:**

- There has been a general downward trend in employment income as a percentage of total income in Yukon, along with a general upward trend in other income. This overall trend may reflect an aging population.
- There is a general upward trend in other income for Pelly Crossing.

Data for Figure 4-34 were obtained from the National Census. The 2015 SFN Household Survey captured additional information on the various sources of household income. It is expected that this indicator will provide valuable information when compared and evaluated in the coming years. Respondents were asked to identify all their sources of household income in 2015, shown in Figure 4-35.

**Figure 4-35. Percent of SFN Citizens in Yukon Indicating Specific Sources of Household Income: 2015**



Source: 2015 Selkirk First Nation Household Survey of Living Conditions

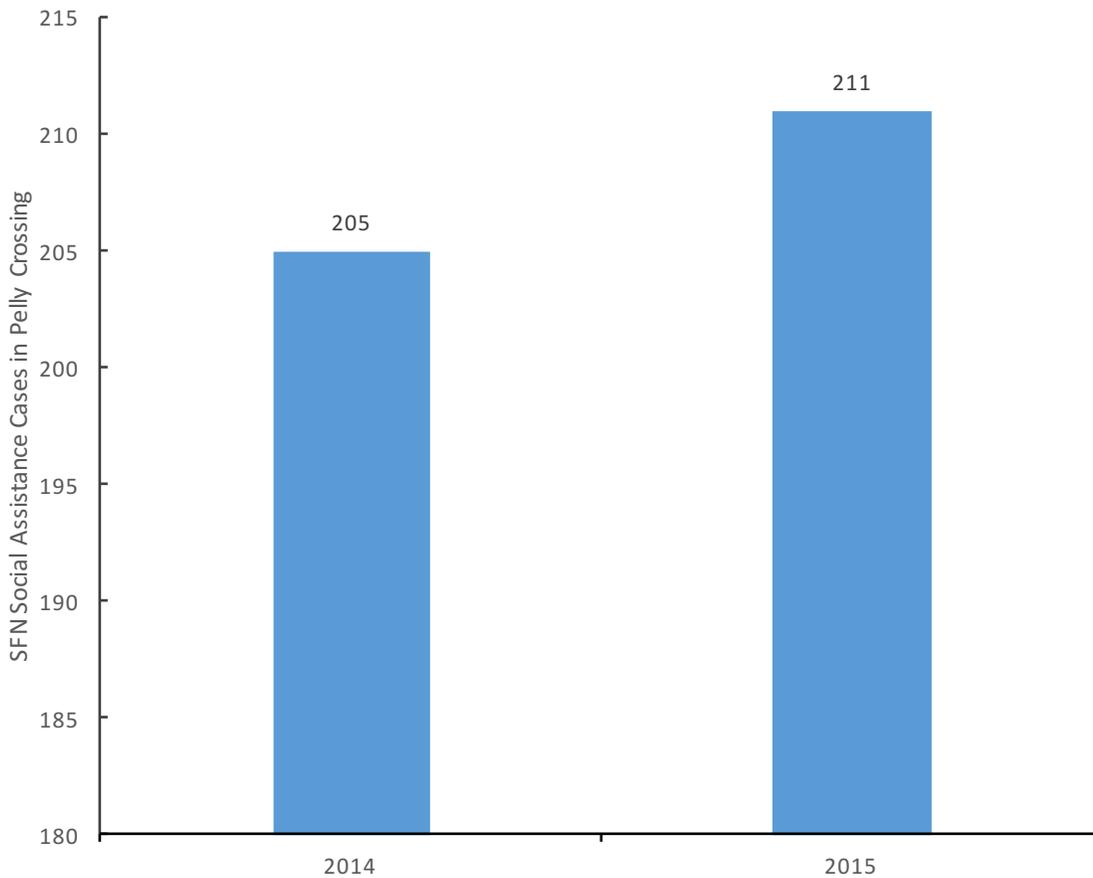
**Notes on Figure 4-35:**

- Survey respondents were asked to indicate all sources of income that applied through 2014. Results are for all SFN citizens surveyed and have not been disaggregated to show details specific to Pelly Crossing.
- Sources of income with fewer than five respondents are not included in the figure. These sources include: Worker's compensation, Student loans/grants, Disability supplementary allowance, Disability pension (CPP), and Long-term disability (from workplace insurance).

### 4.5.7 Indicator #22 Number of Social Assistance Cases

This indicator identifies the number of SFN social assistance cases in Pelly Crossing.

**Figure 4-36. Number of Individual SFN Citizens Receiving Social Assistance in Pelly Crossing**



Source: Selkirk First Nation Administration

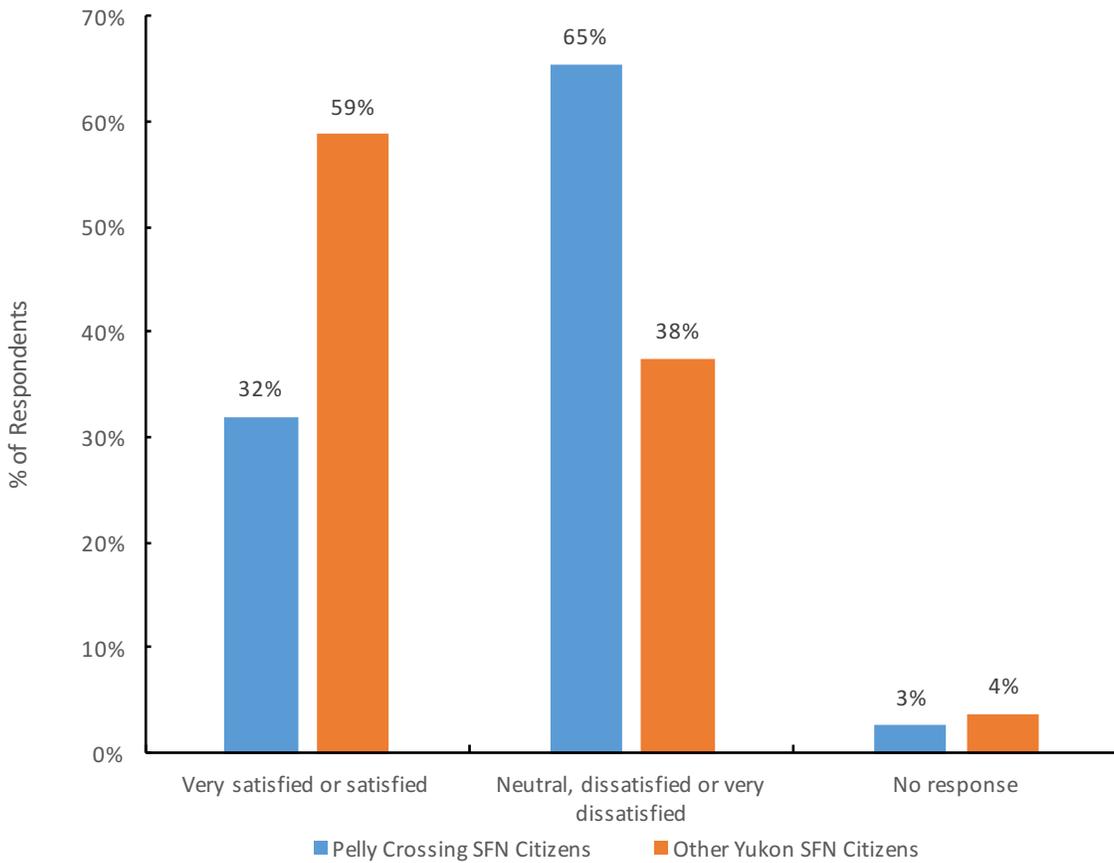
**Notes on Figure 4-36:**

- This program is for SFN citizens in financial need. The program offers a financial relief to Citizens while working with them on career planning, counseling and work opportunities.
- As the data shows, there was a slight increase in social assistance cases in 2015 (211) from 2014 (205).

### 4.5.8 Indicator #22b Satisfaction with Financial Circumstance

This indicator measures satisfaction with personal financial circumstance as it contributes to overall material well-being in a mixed cash and non-cash economy.

**Figure 4-37. Satisfaction of SFN Citizens with their Financial Circumstance: 2015**



Source: 2015 Selkirk First Nation Household Survey of Living Conditions

**Notes on Figure 4-37:**

- A lower proportion of SFN citizens living in Pelly Crossing reported to be satisfied with their financial situation in comparison with SFN citizens in other parts of Yukon.

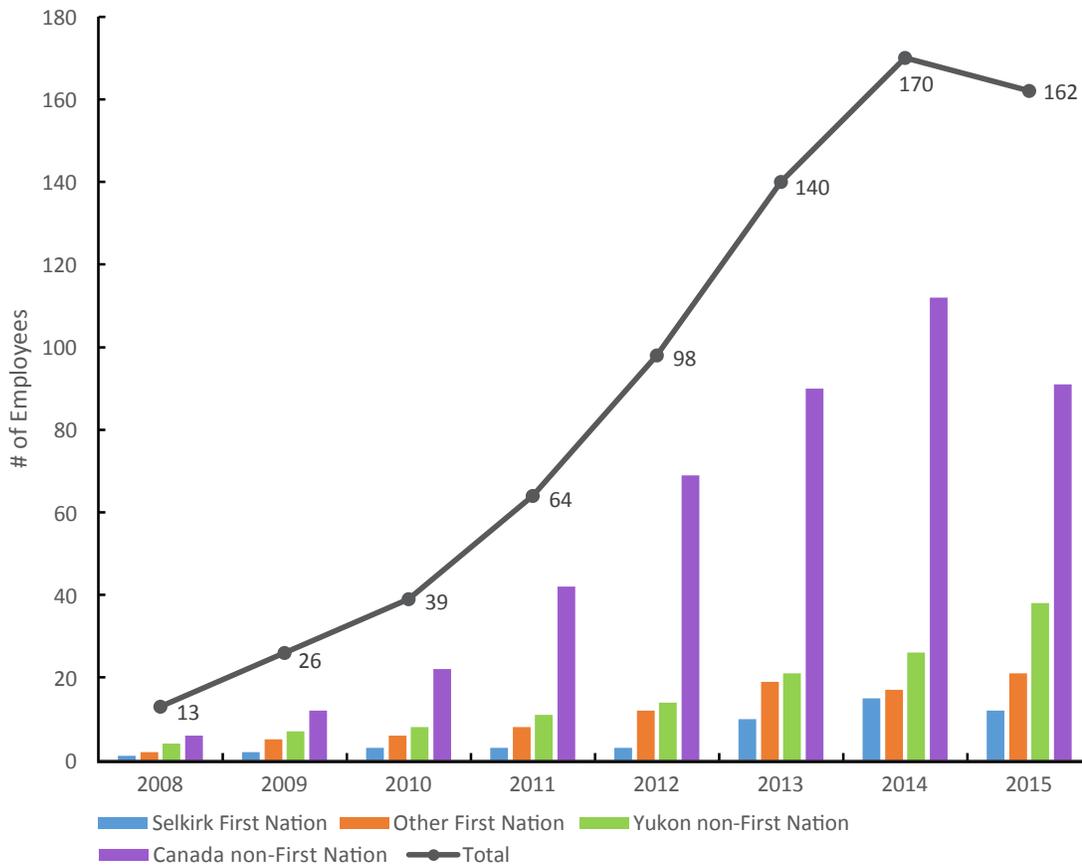
## 4.6 Employment

This section presents the available data for Indicator #23 (Minto’s northern employment by group); Indicator #24 (Minto’s northern employment by residency); Indicator #25 (Employment by contractors), Indicator #26 (Minto new hires for operations by group); Indicator #27 (Minto employment by job category and group); Indicator #28 (Employment rate); Indicator #29 (Unemployment rate); Indicator #30 (Participation rate); and Indicator #31 (Employment by sector).

### 4.6.1 Indicator #23 Minto Employment by Group

This indicator measures Minto employment by group: SFN, Other First Nation (OFN), Yukon non-First Nation, and Canada non-First Nation.

**Figure 4-38. Satisfaction of SFN Citizens with their Financial Circumstance: 2015**



Source: Minto Explorations Ltd.

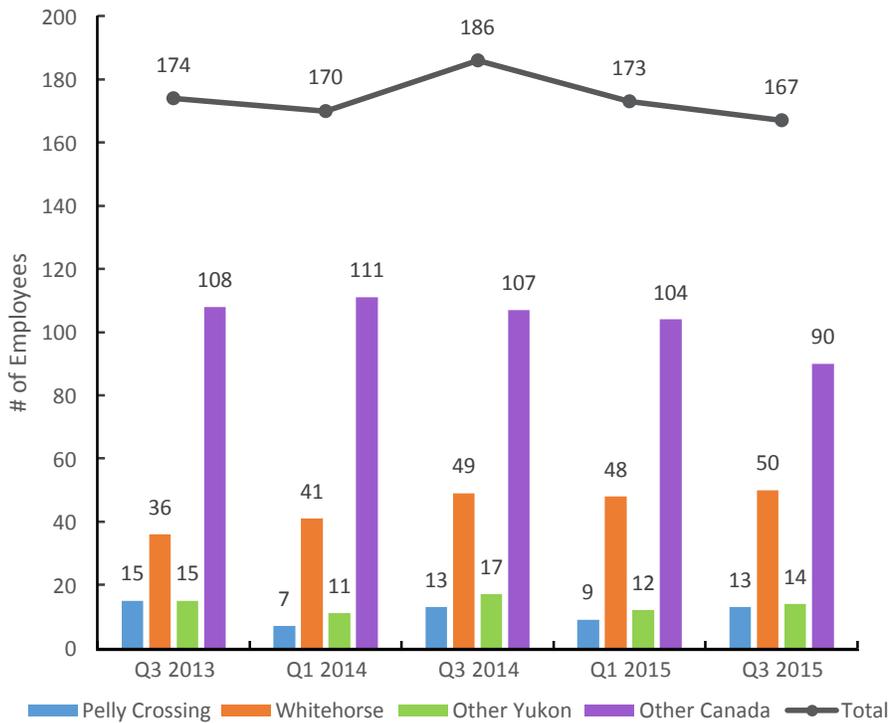
**Notes on Figure 4-38:**

- Annual employment counts shown include only direct hires by Minto as of December 31.
- The SFN, OFN and non-First Nation Yukon groups show rising trends. At the end of 2015, over 43% of the total Minto workforce was comprised of Yukon Residents.

### 4.6.2 Indicator #24 Minto Employment by Residency

This indicator is intended to measure Minto employment by residency: Pelly Crossing, Whitehorse, Yukon and Canada.

**Figure 4-39. Minto Employee Counts by Residency: Q3 2013 - Q3 2015**



Source: Minto Explorations Ltd.

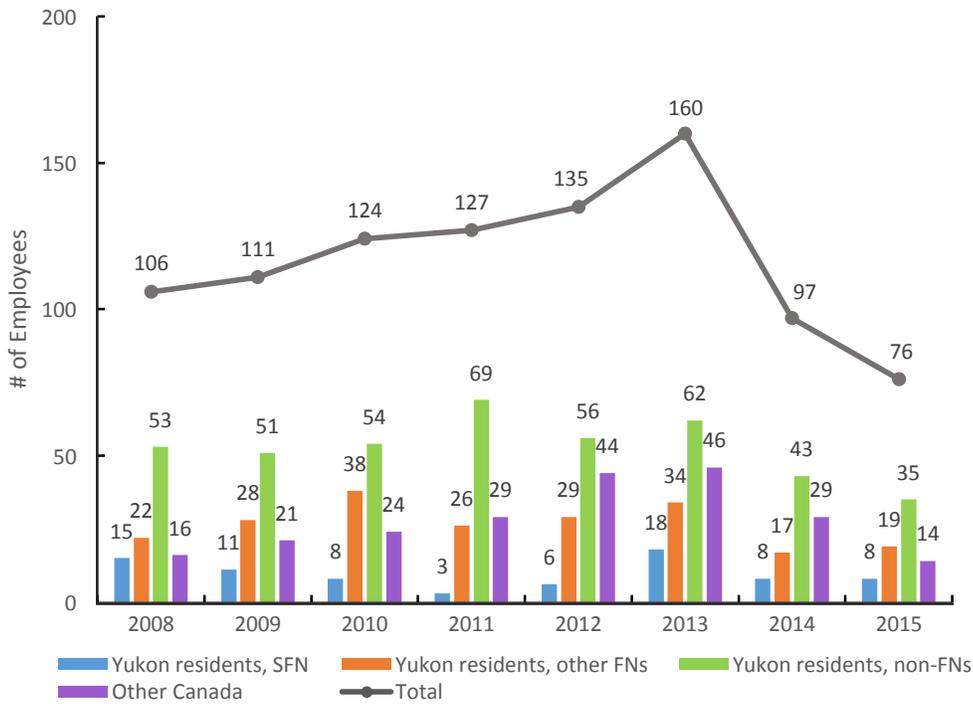
**Notes on Figure 4-39:**

- Just over 45% of Minto employees live in Yukon.
- Between Q3 2013 and Q1 2015, Pelly Crossing residents made up approximately 4.1% to 8.6% of the company's employees.
- Between Q3 2013 and Q1 2015, Whitehorse residents have varied between 21% and 28% of the company's employees.
- In 2014 a total of 20 SFN citizens living in any location were employed by Minto

### 4.6.3 Indicator #25 Employment by Contractors

This indicator measures employment by residency of the Minto Mine’s major contractors.

**Figure 4-40. Surface Mining Contractor Employee Counts by Group and Residency: 2008-2015**

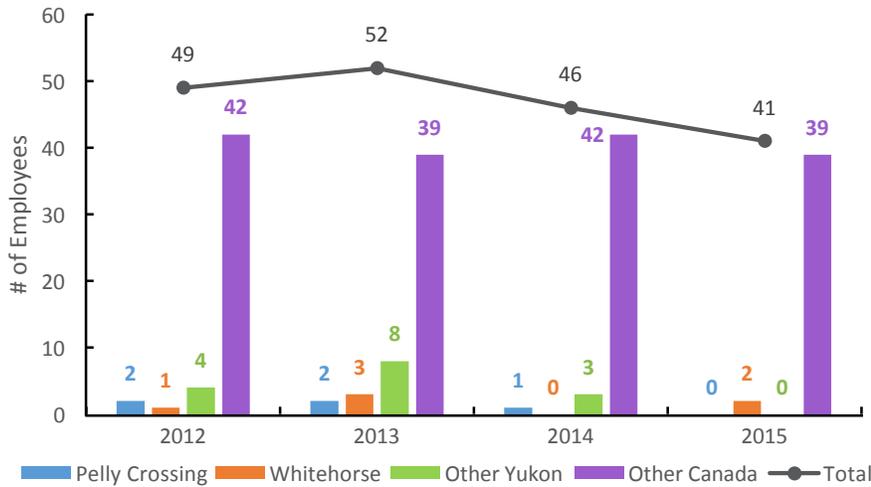


Source: Minto Explorations Ltd.

**Notes on Figure 4-40:**

- The sharp drop in employment in 2014 and 2015 reflects the partial suspension of surface mining.

**Figure 4-41. Underground Mining Contractor Employee Counts by Residency: 2012-2015**

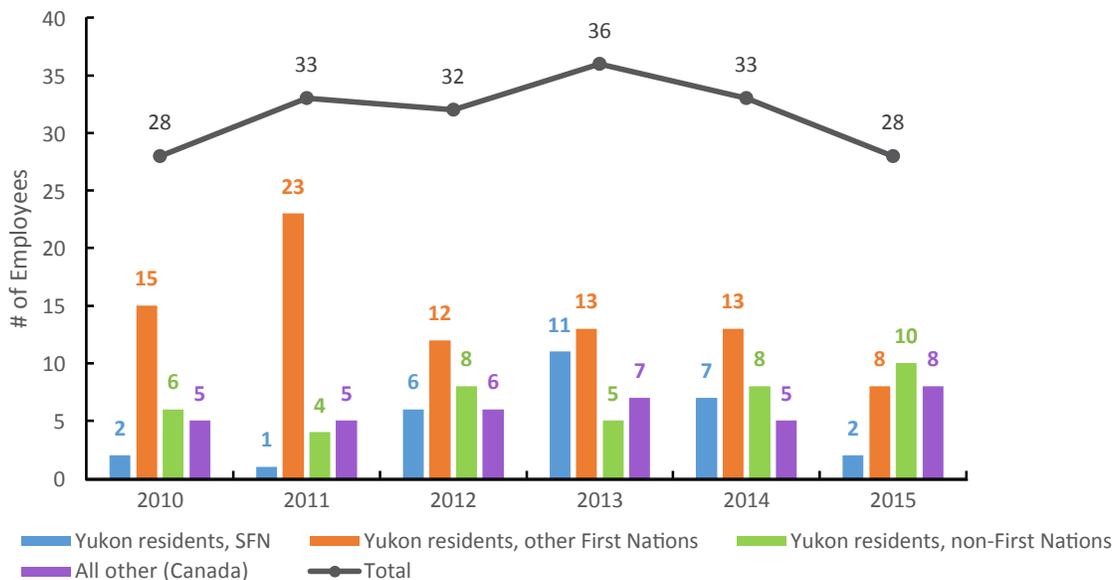


Source: Minto Explorations Ltd.

**Notes on Figure 4-41:**

- Data from 2012 through 2015 indicate that between 75% to 91% of the underground contractor’s employees are non-Yukon residents.
- Underground mining is a specialized occupation and these types of workers are not found in the same numbers, or range, throughout the Canadian (or North American) workforce as open-pit mining workers. Underground mining workers are typically located in a few narrow geographical areas that have a history of underground mining, such as Northern Ontario, and Eastern and Northern Quebec. Historically, there have not been large numbers of these workers in Yukon.

**Figure 4-42. Camp Contractor Employee Counts by Group and Residency: 2010-2015**



Source: Minto Explorations Ltd.

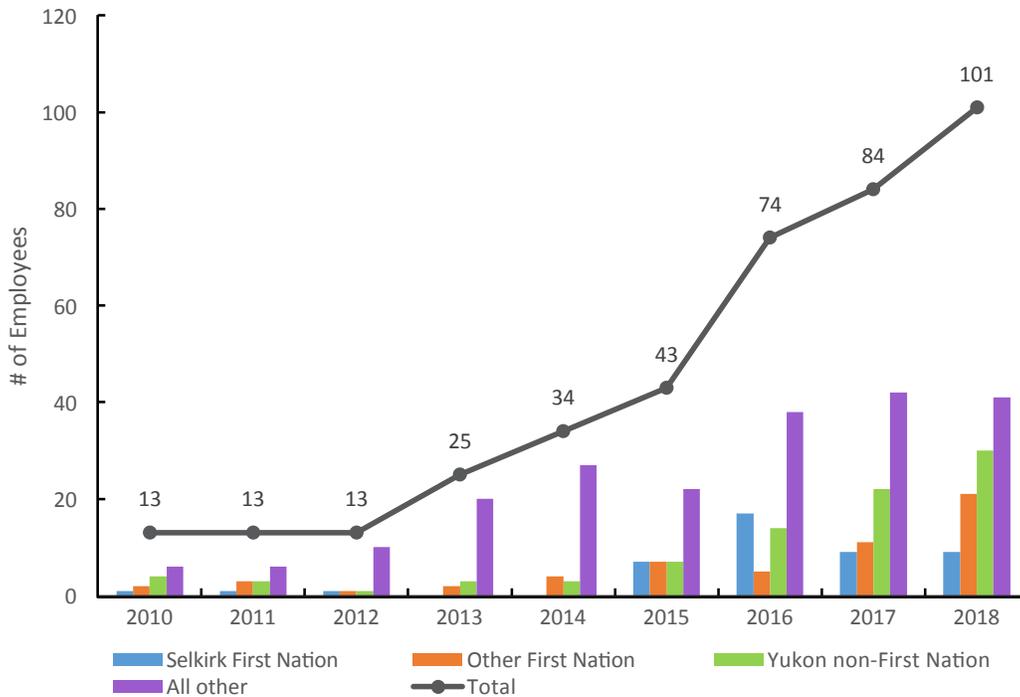
**Notes on Figure 4-42:**

- Between 2010 and 2014, over 80% of the camp contractor’s employees were Yukon residents. In 2015, this decreased to 73%.
- Yukon First Nation citizens have made up the majority of employees prior to 2015.

### 4.6.4 Indicator #26 Minto New Hires for Operations by Group

This indicator measures new hires by group — SFN, OFN, Yukon non-First Nations, and all other (Canada). Hiring decisions are driven by factors such as the availability of the skills and experience required; the ability and willingness of the employer to take on trainee employees; the costs associated with the hire (e.g., fly-in employees versus local); and the ability of new hires to pass the industry-standard employment screening. Additionally, Minto practices preferential hiring of SFN citizens, Pelly Crossing residents and Northern Tutchone citizens, in that order, depending on required job skills and experience.

**Figure 4-43. Minto New Hires by Group: 2007-2015**



Source: Minto Explorations Ltd.

**Notes on Figure 4-43:**

- SFN new hires occurred primarily from 2012 onwards.
- Since 2013, Minto has made a focused effort on increasing both SFN and local (Yukon) workforce representation.

### 4.6.5 Indicator #27 Minto Employment by Job Category and Group

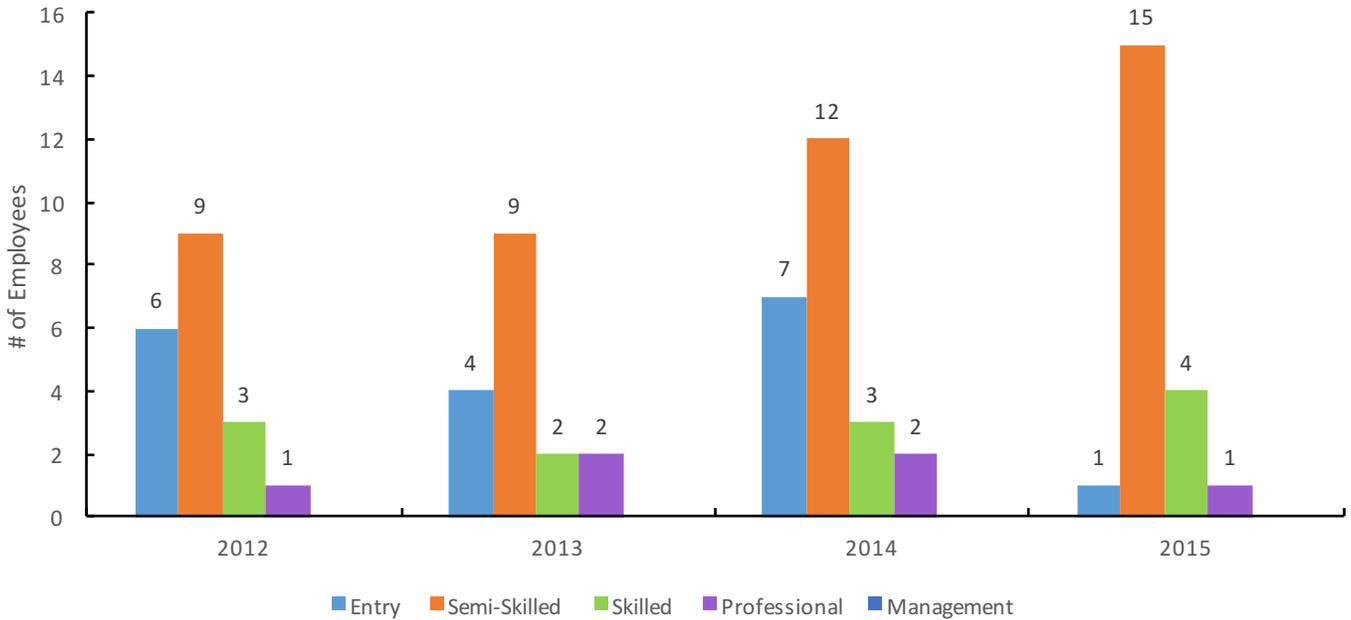
This indicator measures employment by Minto according to group and job category: entry level, semi-skilled, skilled, professional and management.

**Figure 4-44. Minto Employment of SFN by Group and Job Category: 2012-2015**



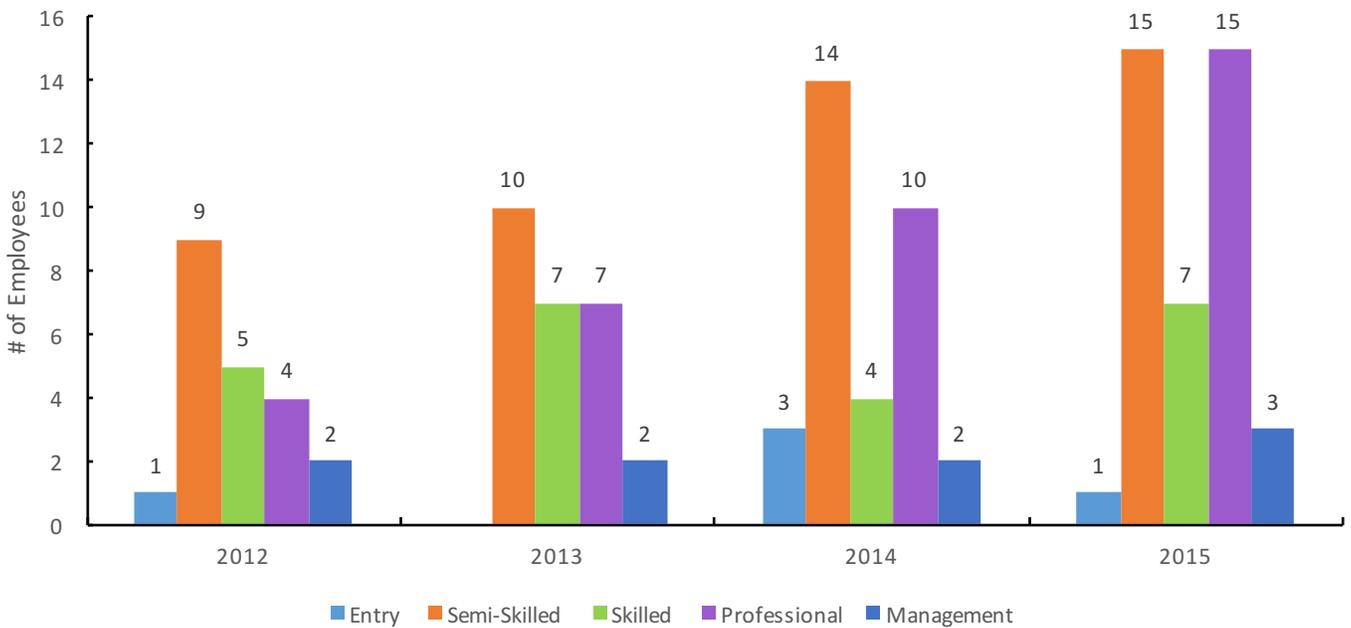
Source: Minto Explorations Ltd.

**Figure 4-45. Minto Employment of Other First Nations by Group and Job Category: 2012-2015**



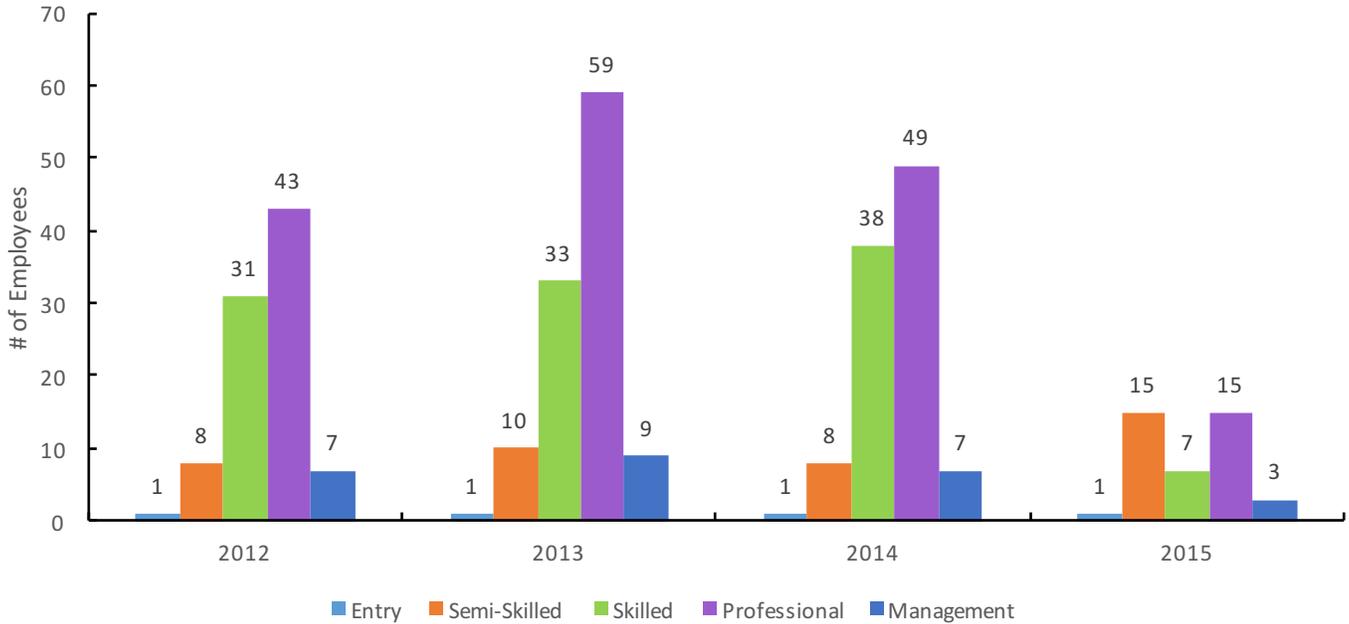
Source: Minto Explorations Ltd.

**Figure 4-46. Minto Employment of Yukon Non-First Nations by Group and Job Category: 2012-2015**



Source: Minto Explorations Ltd.

**Figure 4-47. Minto Employment of Other Canada Residents by Group and Job Category: 2012-2015**



Source: Minto Explorations Ltd.

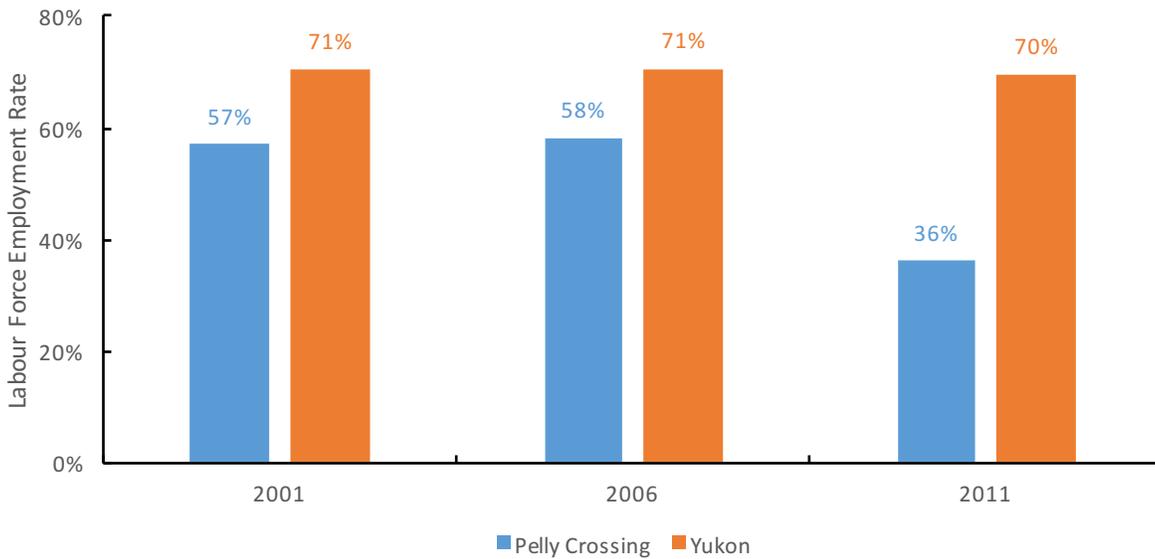
**Notes on Figures 4-44 through 4-47:**

- SFN and OFN employees are primarily in entry-level and semi-skilled positions.
- Yukon non-First Nations employees are represented in all categories of employment.
- Skilled, professional and management job categories are primarily held by employees from outside Yukon.

### 4.6.6 Indicator #28 Employment Rate

The employment rate is the percentage of the labour force that is employed. The labour force is defined as those aged 15 years and over who are either working or actively looking for work. Figure 4-48 compares the employment rates for Pelly Crossing to the Yukon rates for the Census years 2001 and 2006 and the 2011 NHS.

**Figure 4-48. Labour Force Employment Rate (%), Pelly Crossing and Yukon: 2001, 2006 and 2011**



Source: Statistics Canada 2001 Census Catalogue no. 95F0181XDB96001; 2006 Census Catalogue no. 94-578-XCB2006002; 2011 NHS Semi-custom profile NHS2011\_Can\_PR\_CD\_CSD\_DA

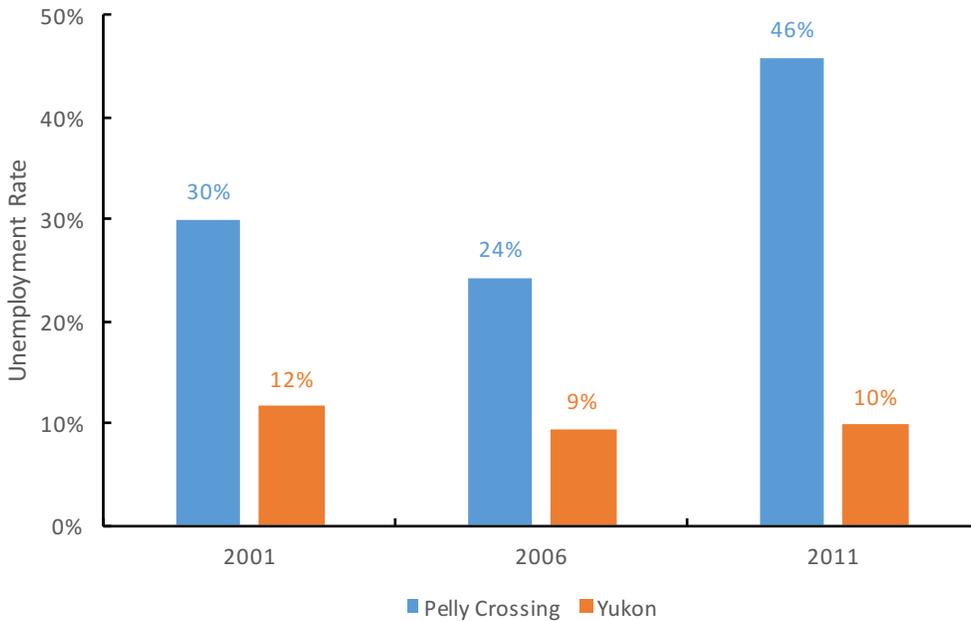
**Notes on Figure 4-48:**

- The Yukon employment rate has remained largely unchanged between 2001 and 2011.
- The employment rate for Pelly Crossing was significantly lower than Yukon in 2001 and 2006, but was also largely unchanged over that period.
- The apparent sharp decline in the employment rate in Pelly Crossing as found in the 2011 NHS is unlikely to have occurred as shown. It may be a result of data quality issues in the 2011 survey (see Section 1.3).

### 4.6.7 Indicator #29 Unemployment Rate

The unemployment rate is the percentage of the labour force that is not employed but is actively looking for work. Figure 4-49 compares the unemployment rates for Pelly Crossing to the Yukon rates for the Census years 2001 and 2006 and the 2011 NHS.

**Figure 4-49. Unemployment Rate (%), Pelly Crossing and Yukon: 2001, 2006 and 2011**



Source: Statistics Canada 2001 Census Catalogue no. 95F0181XDB96001; 2006 Census Catalogue no. 94-578-XCB2006002; 2011 NHS Semi-custom profile NHS2011\_Can\_PR\_CD\_CSD\_DA

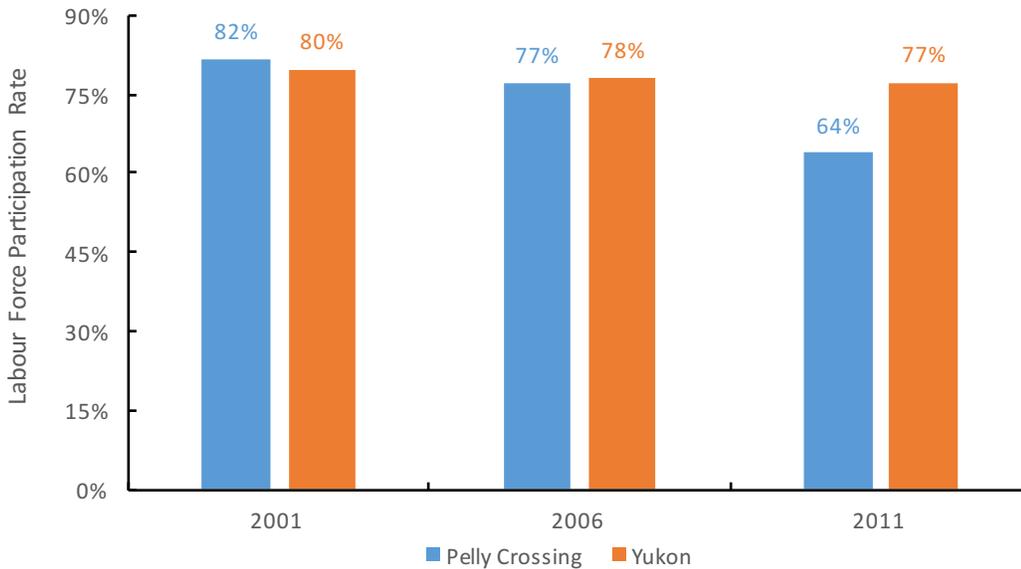
**Notes on Figure 4-49:**

- The Yukon unemployment rate decreased between 2001 and 2011.
- The unemployment rate for Pelly Crossing was considerably higher than the Yukon rate in 2001 and 2006, but showed a drop between those years.
- The apparent increase in the unemployment rate in Pelly Crossing as found in the 2011 NHS is unlikely to have occurred as shown. It may be a result of data quality issues in the 2011 survey (see Section 1.3).

### 4.6.8 Indicator #30 Participation Rate

The labour force participation rate is defined as the proportion of the population aged 15 years and over who are either employed or are unemployed but actively looking for work. Figure 4-50 compares the labour force participation rates for Pelly Crossing to the Yukon rates for the Census years 2001 and 2006 and the 2011 NHS.

**Figure 4-50. Labour Force Participation Rate (%), Pelly Crossing and Yukon: 2001, 2006 and 2011**



Source: Statistics Canada 2001 Census Catalogue no. 95F0181XDB96001; 2006 Census Catalogue no. 94-578-XCB2006002; 2011 NHS Semi-custom profile NHS2011\_Can\_PR\_CD\_CSD\_DA

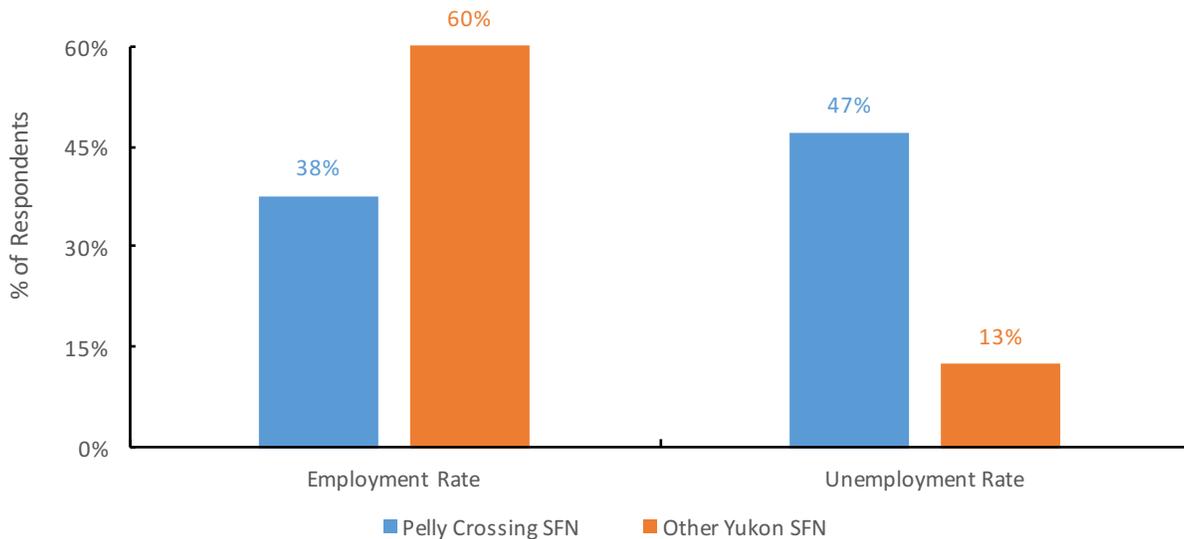
**Notes on Figure 4-50:**

- Pelly Crossing’s participation rate was effectively equal to Yukon’s in 2001 and 2006 before apparently declining in 2011. This apparent decline, as found in the 2011 National Household Survey, is unlikely to have occurred as shown. It may be a result of data quality issues in the 2011 NHS (see Section 1.3 for details).

The 2015 SFN Household Survey captured additional information on the labour market, including employment rate and unemployment rate, pertaining to SFN residents in Pelly Crossing and other parts of Yukon. Sub-indicators for these parameters have been developed. It is expected that these sub-indicators will provide valuable information when compared and evaluated in the coming years. It is noted that although some respondents of the 2015 SFN Household Survey indicated that they were not participating in the labour market, these numbers are not directly related to the labour force participation rates as defined by Statistics Canada (the proportion of the population aged 15 years and over who are either employed or are unemployed but actively looking for work). Therefore, a sub-indicator for labour force participation rate could not be developed for this report.

Sub-indicators for employment rate and unemployment rate are shown below. These provide a snapshot of comparison of employment and unemployment rates between SFN citizens living in Pelly Crossing and those living in other parts of Yukon.

**Figure 4-51. Employment and Unemployment Rates of all Respondents of the 2015 SFN Household Survey**



Source: 2015 Selkirk First Nation Household Survey of Living Conditions

**Notes on Figure 4-51:**

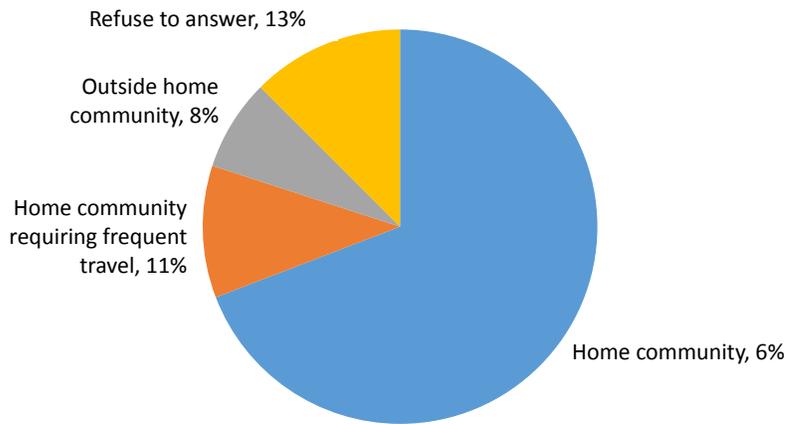
- SFN citizens from other parts of Yukon seem to fare better than those in Pelly Crossing in terms of employment. A higher proportion of Pelly Crossing SFN citizens reported being unemployed (47%) when compared to Other Yukon SFN citizens (13%).

The sub-indicators suggest that SFN citizens living in Pelly Crossing have limited economic opportunities compared to those living in other parts of Yukon.

### 4.6.9 Indicator #31 Employment by Location

This indicator was not part of the 2014 Report. As part of the 2015 SFN Household Survey, respondents employed full-time or part-time were asked about their normal location of work. This indicator is also a reflection of economic opportunities for SFN citizens.

**Figure 4-52. Location of Work of Employed Respondents to the 2015 SFN Household Survey (n=120)**



Source: 2015 Selkirk First Nation Household Survey of Living Conditions

**Notes on Figure 4-52:**

- The majority of SFN citizens employed full-time or part-time (both in Pelly Crossing and other parts of Yukon) work in their home communities.
- Just under one fifth of all respondents work outside their home community or required frequent travel outside their home community.

### 4.6.10 Indicator #32 Employment by Sector

This indicator tracks employment preferences and capacity within the overall level of economic participation of the community. Figure 4-53 shows the employment by selected industries for Pelly Crossing and Yukon, as found by the 2001 and 2006 Census and the 2011 NHS.

**Figure 4-53. Percentage of the Active Labour Force in Selected Industries, Pelly Crossing and Yukon: 2001, 2006 and 2011**



Source: Statistics Canada 2001 Census Catalogue no. 95F0181XDB96001; 2006 Census Catalogue no. 94-578-XCB2006002; 2011 NHS Semi-custom profile NHS2011\_Can\_PR\_CD\_CSD\_DA

Data for Figure 4-53 shown above were obtained from the Census of Canada.

**Notes on Figure 4-53:**

- Public administration is the single largest industry for Yukon as a whole. It is especially dominant in Pelly Crossing, where its share has been growing to the extent that it now employs over half of the active labour force. This may be due in part to the evolution of SFN’s self-governance.
- Labour force participation in the mining sector in Pelly Crossing coincides with commencement of Minto’s operations.
- Although 2001 and 2006 census data are comparable, the 2011 estimates for Pelly Crossing are less reliable due to data quality issues in the 2011 NHS (see Section 1.3 for details).

## 4.7 Business

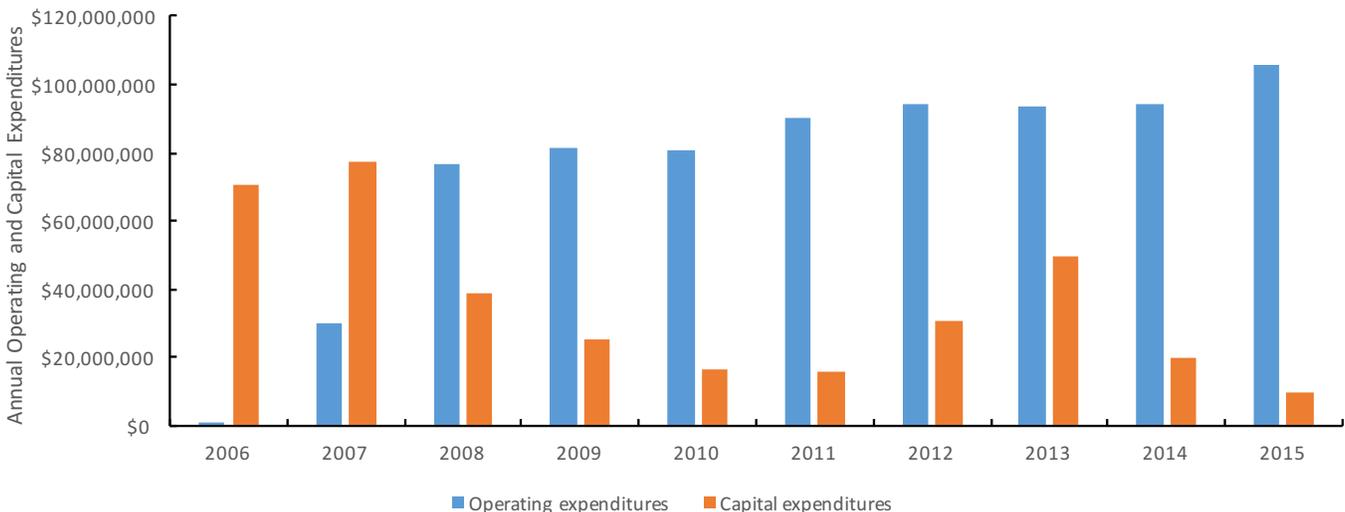
This section presents the available data for Indicator #33 (Minto Mine operating and capital expenditures by group); Indicator #34 (Minto annual and cumulative capital and operating expenditures by group); Indicator #35 (Minto spending on Yukon vendors); Indicator #36 (Minto royalty payments); Indicator #37 (Minto property tax payments and other fees); and Indicator #38 (Minto and contractors’ safety statistics).

As part of Minto and SFN’s cooperation agreement, the company is required to provide preferred opportunity notification to SFN to negotiate and potentially be awarded a contract to satisfy the requirement. SFN has developed partnerships with a number of Minto’s vendors; Minto is not privy to the details of those financial benefits. Therefore, this section does not present expenditures that result from those partnerships.

### 4.7.1 Indicator #33 Minto Operating and Capital Expenditures

This indicator helps measure direct expenditure impacts. Minto could not provide these data broken out by group, but annual total capital and operating expenditures are shown in Figure 4-54.

**Figure 4-54. Minto Mine Operating and Capital Expenditures (\$): 2006-2015**



Source: Minto Explorations Ltd.

**Notes on Figure 4-54:**

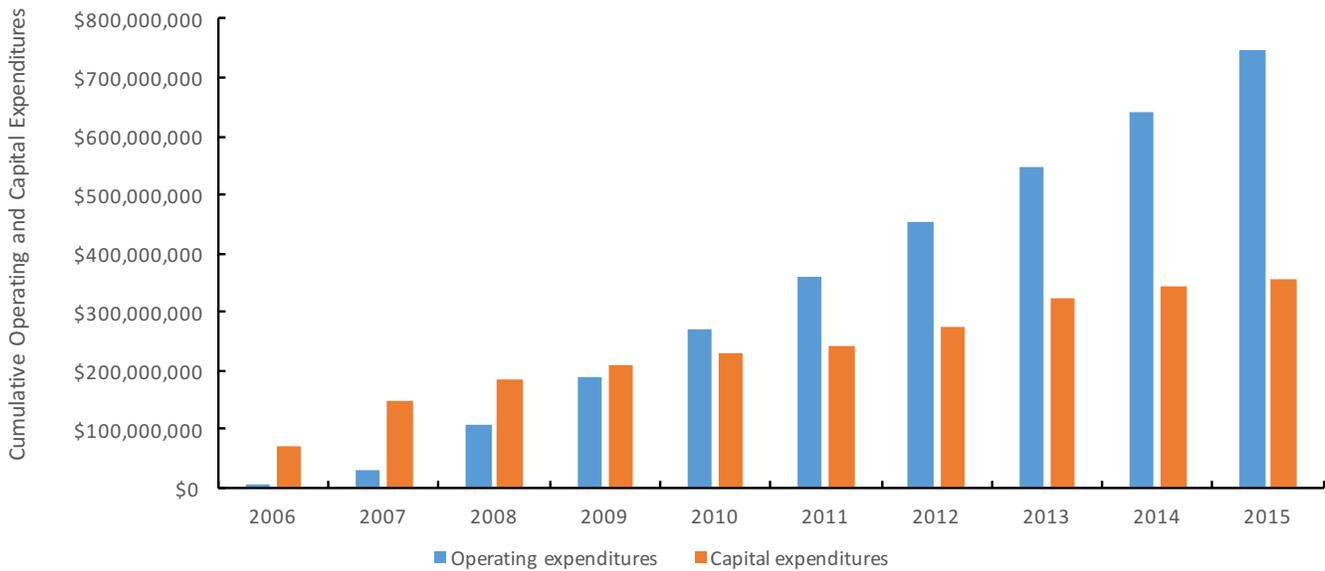
- Minto has historically been mined in a series of small, high grade open pit, discrete mining areas. In 2012 Minto also commenced underground development and since 2014 ore from both open pit and underground has been processed. Depending on capitalized open pit stripping, capitalized underground development and various other capital expenditures to advance the mine plan, capital expenditures can vary from year to year.

### 4.7.2 Indicator #34

## Minto Annual and Cumulative Capital and Operating Expenditures

This indicator helps measure direct expenditure impacts. Cumulative totals of capital and operating expenditures for the Minto Mine (including payments to all contractors by Minto) are shown in Figure 4-55.

**Figure 4-55. Minto Mine Cumulative Operating and Capital Expenses (\$): 2006-2015**



Source: Minto Explorations Ltd.

**Notes on Figure 4-55:**

- Cumulative operating expenses have increased over the years to over \$747 million in 2015.
- Combined capital and operating expenses between 2006 and 2015 totalled over \$1.1 billion.

### 4.7.3 Indicator #35 Minto Spending on Yukon Vendors

This indicator measures direct payments to Yukon businesses.

**Figure 4-56. Minto Mine Payments to Business Vendors (\$), Pelly Crossing and Yukon: 2013-2015**

	2013	2014	2015	Total
<b>Pelly Crossing</b>	66,391	34,563	-	-
<b>Other Yukon</b>	74,942,535	55,763,720	-	-
<b>Total</b>	75,008,926	55,798,283	36,144,688	166,951,897

Source: Minto Explorations Ltd.

**Notes on Figure 4-56:**

- This figure includes payments only to business vendors (including Crown and development corporations); it does not include payments to any level of government.
- Payments to Selkirk Development Corporation have been captured in the “Other Yukon” category because of where the business is registered.
- Data from 2013 and 2014 show that only 0.1% of payments are to Pelly Crossing vendors, likely due to the very small business sector in Pelly Crossing.

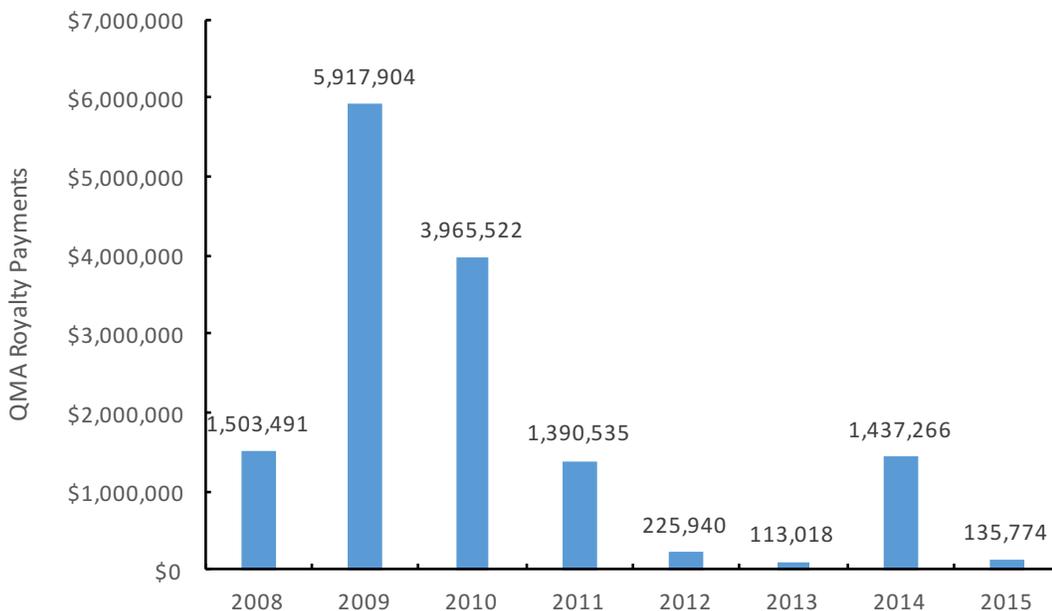
### 4.7.4 Indicator #36 Minto Royalty Payments

Royalty payments are often a significant source of revenue to governments. This is especially true for SFN; it receives the mineral royalties paid by Minto under the *Quartz Mining Act Royalty Regulation* since the mine is located on Category A Settlement Land (where the First Nation holds both surface and subsurface rights). The Government of Yukon administers the royalty on behalf of SFN and transfers the royalty payments directly to SFN.

The *Quartz Mining Act Royalty Regulation* provides for a net profit-based, escalating-scale royalty regime in Yukon. The royalty is based on annual mineral production and sales. There is no royalty on the first \$10,000 of mine output; after \$10,000, the royalty rate escalates with the amount of mine output up to a maximum of 12% royalty on output greater than \$35 million. The value of the output of a mine is determined by subtracting eligible expenses and allowances, as defined in the Regulation, from the value of minerals produced by a mine during the calendar year. This can result in variability in payments depending on a mine’s production volume, profitability, and the amount of eligible expenses the mine operator can deduct against royalties in a given year.

SFN also receives a net smelter return as part of the Cooperation Agreement with Minto. Figure 4-57 shows royalty payments from 2008 to 2015 under the *Quartz Mining Act Royalty Regulation* and Figure 4-58, Minto’s net smelter return payments from 2009 to 2015.

**Figure 4-57. Quartz Mining Act (QMA) Royalty Payments, Minto Mine (\$): 2008-2015**

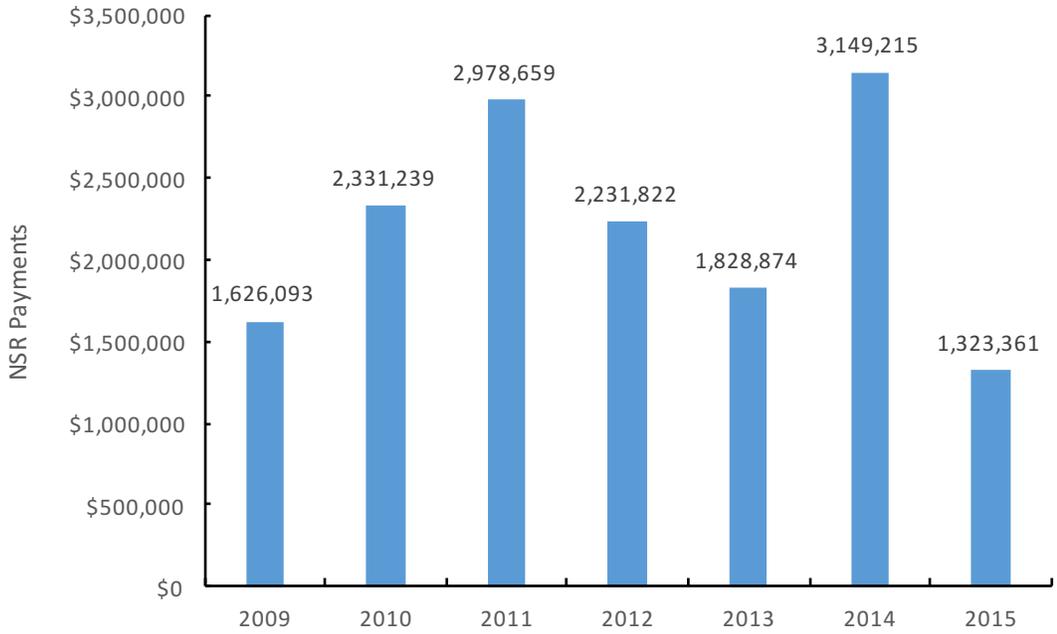


Source: Government of Yukon

**Notes on Figure 4-57:**

- The total QMA royalty paid from 2008 to 2015 was \$14,689,449.
- QMA royalty amounts for the years 2010-2014 reported in the 2014 annual report, have been modified to reflect the royalty reassessment for the Minto Mine completed in 2017. Royalties paid from 2010-2015 included penalties and interest assessed for those years.

**Figure 4-58. Minto Mine (\$): 2009-2015 Net Smelter Return Payments**



Source: Minto Explorations Ltd.

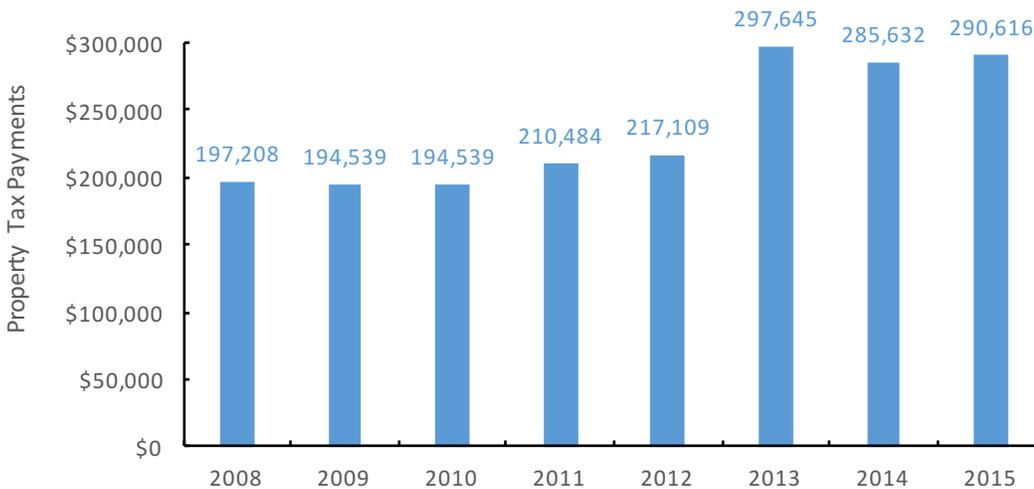
**Notes on Figure 4-58:**

- Payments are recorded in accordance with international financial reporting standards.
- From 2009 to 2015 the total of net smelter return payments to SFN was \$15,469,263.

### 4.7.5 Indicator #37 Minto Property Tax Payments and Other Fees

Minto pays property taxes to the Government of Yukon, forming one part of government revenue gained from the operation. Figure 4-59 shows the annual property taxes paid by Minto to the Government of Yukon. Other fees exist that have not been presented in this report.

**Figure 4-59. Property Taxes Paid by the Minto Mine (\$): 2008-2015**



Source: Minto Explorations Ltd.

**Notes on Figure 4-59:**

- Since 2008, a total of \$1.9 million in property taxes has been paid to the Government of Yukon.

### 4.7.6 Indicator #38 Minto and Contractors Safety

Minto and contractor safety data are presented under Indicator #10, Figure 4-15. It is referenced here to complete the business-valued component set of indicators. Work-related injuries come with high costs in both health and financial terms for workers and their families, for the employer and for society as a whole.

## 4.8 Selkirk First Nation Traditional Economy

**Traditional economic activities — hunting, fishing, gathering and trapping — are an important part of social, economic and cultural life for SFN citizens. The SFN traditional economy is an integral component of the broader SFN mixed economy in which SFN citizens participate on a cash and non-cash basis. There is a strong household basis to the SFN traditional economy.**

The traditional foods produced are essential for both SFN food security and for reducing or mitigating the impacts of lower cash income and wage employment levels in Pelly Crossing. Published data on these activities in Yukon and elsewhere in northern Canada are typically sparse and usually nonexistent.

Indicators presented below include: Indicator #39 (Percent of SFN citizens engaged in harvesting activities); Indicator #40 (Percent amount of traditional food consumed; and, Indicator #41 (Satisfaction with availability of traditional foods). They provide data on the functioning, relative strength and significance of the local SFN traditional economy.



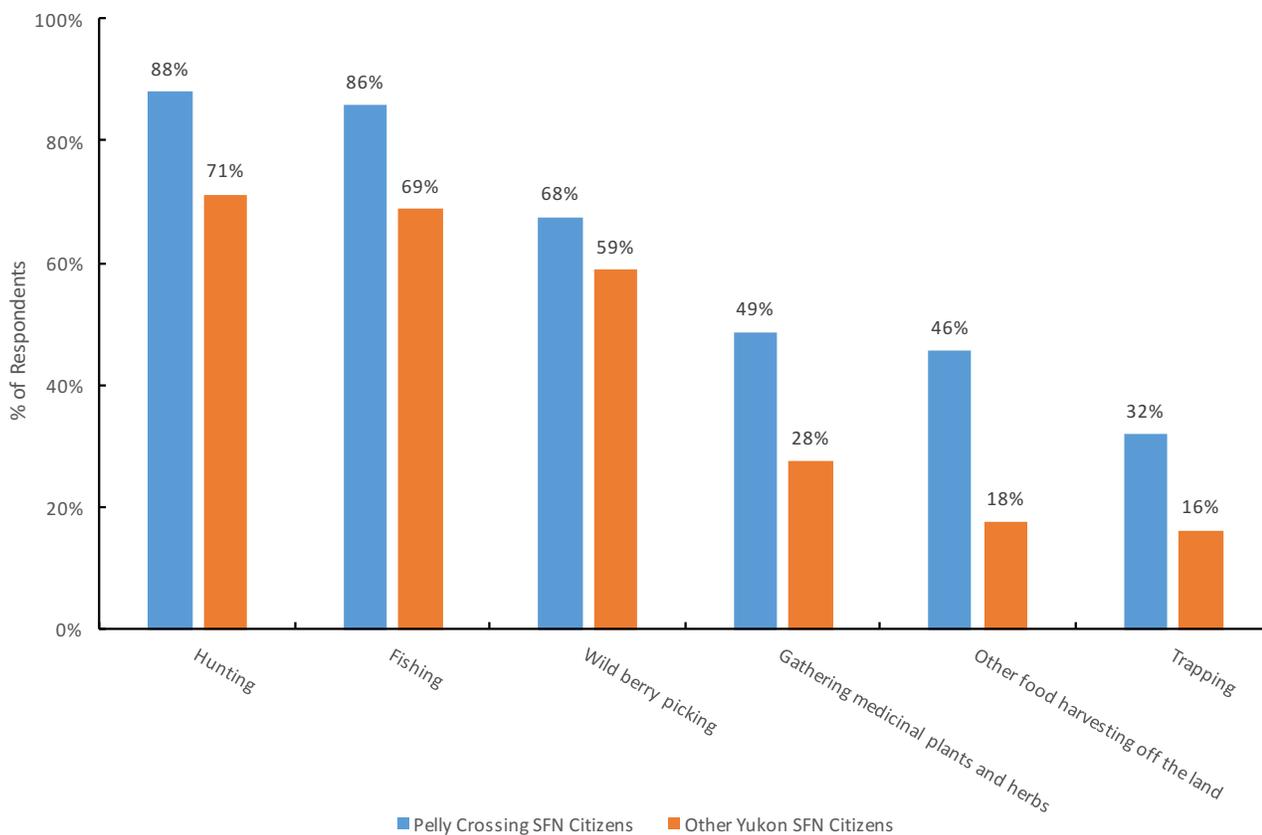
Ice Fishing Success

PHOTO: SELKIRK FIRST NATION

### 4.8.1 Indicator #39 Percent of SFN Citizens Engaged in Harvesting Activities

The relative strength of the SFN traditional economy is measured in part through the level of SFN citizens' participation in harvesting activities. This indicator describes the percentage of the SFN workforce (individuals 16 years of age and over) engaged in various harvesting activities over the previous 12-month period ending in March 2015, shown in Figure 4-60. Hunting, fishing and wild berry picking are the predominant activities.

**Figure 4-60. Percent of all Respondents to the 2015 SFN Household Survey who are Engaged in Harvesting: 2015**



Source: 2015 Selkirk First Nation Household Survey of Living Conditions

**Notes on Figure 4-60:**

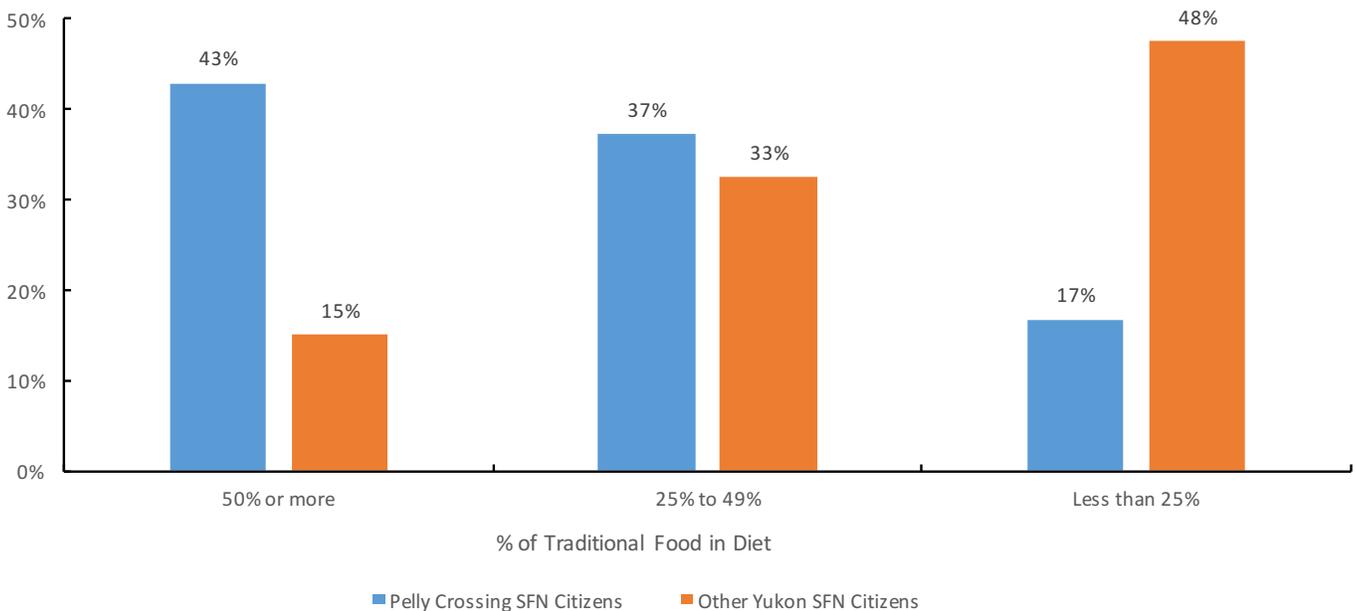
- The extremely high level of participation by SFN citizens living in Pelly Crossing in traditional activities indicates the importance attached to those activities and the material and cultural contributions that they make.

### 4.8.2 Indicator #40

#### Percent Amount of Traditional Foods Consumed by SFN Citizens: 2015

Food security is economic security and the relative amount of traditional foods consumed by SFN households is a measure of its economic importance and contribution to household economies. SFN survey respondents were asked how much of the food they and their families ate in the past year came from harvesting, such as berry-picking, wild game or fish. Traditional foods form a higher percentage of the diet for SFN citizens at Pelly Crossing than SFN citizens in other parts of Yukon. It is noted that the 2015 SFN Household Survey results indicate that one of the major reasons reported for staying in Pelly Crossing was “good hunting, trapping, fishing and other opportunities”. Figure 4-61 presents the data for all SFN respondents (living in Pelly Crossing and elsewhere).

**Figure 4-61. Percent of all Respondents to the 2015 SFN Household Survey Who Consume Traditional Foods**



Source: 2015 Selkirk First Nation Household Survey of Living Conditions

**Notes on Figure 4-61:**

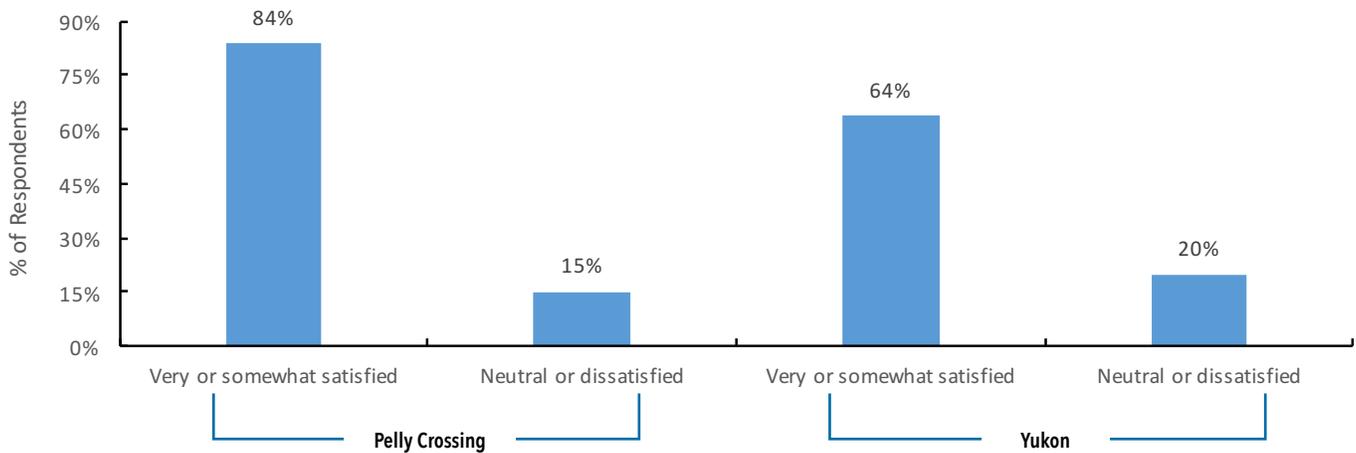
- SFN citizens living in Pelly Crossing reported that traditional foods were a key component of diet during the previous 12 months.

### 4.8.3 Indicator #41

#### Satisfaction of SFN Citizens with the Quality and Availability of Traditional Foods: 2015

Satisfaction with the quality and availability of wildlife resources to meet domestic needs, harvest access (e.g. time, equipment, money) and sharing arrangements of these resources are important considerations in assessing the health of the SFN traditional economy. Satisfaction with the quality and availability of traditional foods is high for SFN citizens in Pelly Crossing and is a partial proxy for the state of the environment where they are harvested and gathered. It should be noted that whenever practical, Minto accommodates employees' requests for time off to pursue traditional activities. In addition, Minto works with SFN to accommodate requests to use the mine access road and the barge for hunting, trapping, berry picking and wood cutting. Data is presented in Figures 4-62 and 4-63.

**Figure 4-62. Satisfaction of SFN Citizens with Quality of Traditional Foods**

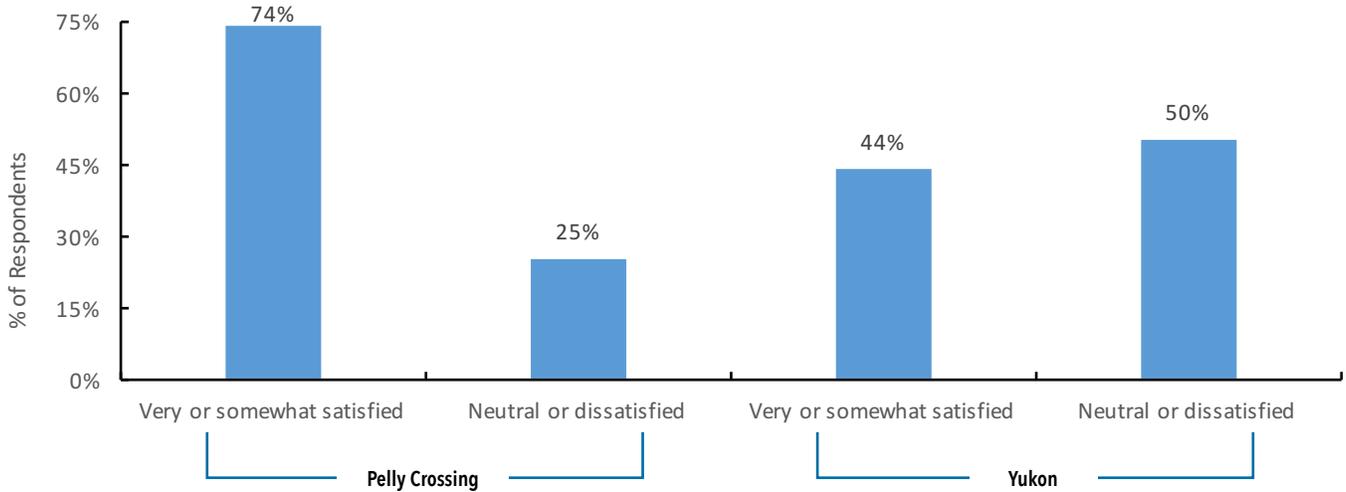


Source: 2015 Selkirk First Nation Household Survey of Living Conditions

**Notes on Figure 4-62:**

- A higher proportion of SFN citizens in Pelly Crossing reported being very or somewhat satisfied with the quality of traditional foods locally available when compared to other Yukon SFN citizens.

**Figure 4-63. Satisfaction of SFN Citizens with the Availability of Traditional Foods: 2015**



Source: 2015 Selkirk First Nation Household Survey of Living Conditions

**Notes on Figure 4-63:**

- A higher proportion of SFN citizens in Pelly Crossing reported being very or somewhat satisfied with the availability of traditional foods when compared to other Yukon SFN citizens.



Drying Salmon

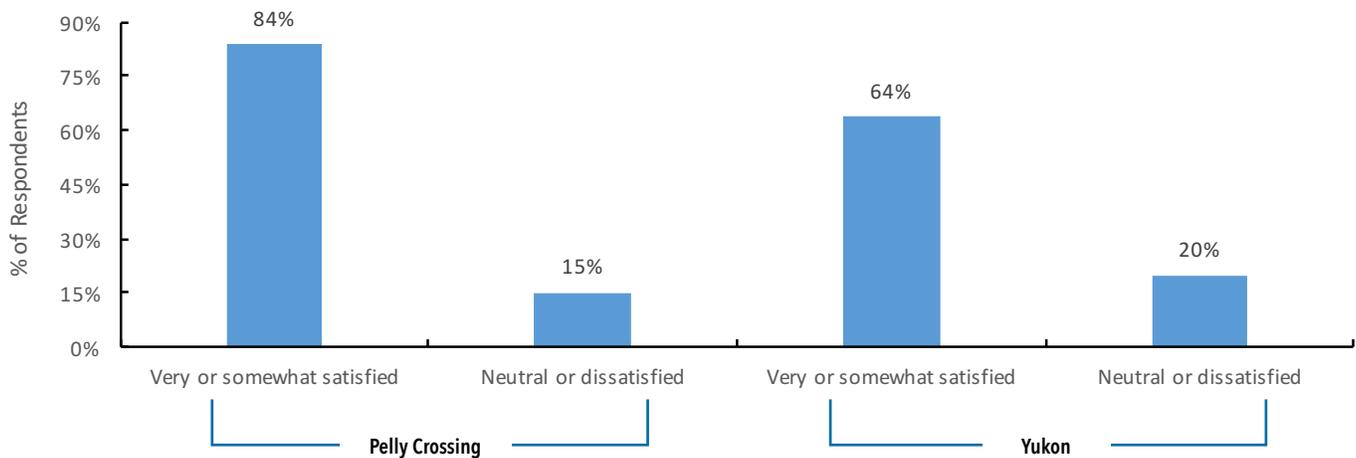
PHOTO: SELKIRK FIRST NATION

### 4.8.4 Indicator #51

#### Level of Satisfaction with Access to Traditional Foods: 2015

The level of satisfaction with access to traditional foods through harvesting activities is an important indicator of both confidence in food security and maintaining a strong cultural connection to land and water. Available time, money, equipment and resource competition are some factors affecting level of satisfaction. Data is presented in Figure 4-64.

**Figure 4-64. Satisfaction of SFN Citizens with Access to Traditional Foods: 2015**



Source: 2015 Selkirk First Nation Household Survey of Living Conditions

**Notes on Figure 4-64:**

- SFN citizens in Pelly Crossing reported higher levels of satisfaction with their access to traditional foods locally than other Yukon SFN citizens.
- The responses do not add up to 100% since some of the respondents did not respond to the survey question.

## 4.9 Employment & Workforce Development

**This Valued Condition employment and workforce development uses three indicators to describe and measure commitments to employment and labour force development as a function of mine operations and eventually, closure: Indicators #42, #43 and #44 (Skills and Labour Force Development Initiatives).**

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### 4.9.1 Indicator #42

#### High-level Description of Initiatives to Enhance Skills & Labour Force Development

Since 2007 Minto has expanded its training to enhance the skills of its workforce. Much of this skills training is transferable to other mining operations and more broadly to other industries. Safety training ranges from working with hazardous materials and working in confined spaces to Red Cross first aid courses and First Line Supervisor Certification by the Yukon Workers' Compensation Health and Safety Board. The Emergency Response Team collectively trains regularly to provide emergency response and primary care.

Minto, working with its major contractor partners, supported many different capacity building, training and educational initiatives in 2015. Minto supports development of a more advanced local labour force through a combination of on-the-job training and mentoring, combined with sponsoring apprenticeships, pre-apprenticeships and other educational initiatives.

### 4.9.2 Indicator #43

#### Detailed Description of Initiatives to Enhance Skills & Labour Force Development

Minto has undertaken several initiatives to enhance skills and labour force development. These initiatives include formal and informal approaches that are suited to meet a range of needs and that reflect the requirements of a local work force. In the absence of formal tracking and agreements, management reviews various initiatives, receives input from the community and from the SFN Minto Employment Liaison, and uses management discretion to make decisions regarding skill development.

Minto's Human Resources Department works with the SFN Minto Employment Liaison, based in Pelly Crossing, regarding Cooperation Agreement matters pertaining to preferential hiring for SFN citizens, Pelly Crossing residents and Northern Tutchone citizens.

Minto funds the SFN Minto Employment Liaison position through the Selkirk Development Corp. All position vacancies are sent to the SFN Minto Employment Liaison, who advertises them in the community and sends resumes and applications to Minto Human Resources and hiring departments of contractors. Minto and its contractors, conduct job fairs in the community throughout the year and to meet hiring needs.

Minto works with Yukon College and local schools to facilitate mine site tours for students. It has various partnerships with Yukon College to support the Underground Mine Training, Introduction to Mining, Surface Mine Training and First Line Supervisor training programs.

**SFN and OFN specific training in 2015 included the following:**

### **Heavy Equipment Operator (HEO) training**

In 2015, Minto, working with its surface mining contractor Pelly Construction, delivered an introductory HEO course for SFN citizens. Minto provided camp accommodations and food, on-the-job safety training, realistic job challenges and job previews to SFN citizens. Pelly Construction provided the on-the job HEO training and certification. These initiatives build capacity in the local SFN population and also allow the Minto operation the advantage of providing a trial period, or pre-screen on potential future employees for the Mine.

In 2015, Minto selected, promoted and trained one SFN employee within its Site Services department as a HEO. This on-the-job training has focused heavily on safe work practices and environmental protection and procedures.

### **Introduction to Mining Program**

Minto, working with its major contractors, supported ongoing training opportunities for new First Nations workers entering the mining sector. This was achieved by working through the Yukon College partnership with the YMTA to offer the Introduction to Mining Program. In early 2015, a delegation of these trainees visited the Mine site where they participated in tours of the open pit and underground mine.

### **Pre-Apprenticeship Training**

Minto is helping to sponsor one SFN student in completing pre-apprenticeship study requirements in partnership with Yukon College (Carpenter).

### **Apprenticeship training**

Minto is sponsoring one SFN student in apprenticeship training (Warehouse Parts person) and this employee has just finished his level 2 training within that program of study.

Minto is sponsoring an OFN employee within the Millwright Apprenticeship program, and this employee is working on his level 3 Millwright apprenticeship.

### **Environmental Monitor-in-Training**

In 2015, Minto was not able to fill these two Environmental Monitor-in-Training positions with SFN citizens, due to a lack of Drivers Licenses for the candidates who applied. Minto took steps to mitigate this systemic barrier by working with the SFN Minto Employment Liaison to potentially consider sponsoring Drivers education training, following which Minto was successful in hiring two OFN employees for these positions.

## **4.9.3 Indicator #44**

### **Description of Partnership Arrangements to Enhance Skills & Labour Force Development**

Although Minto has no formal partnerships in place to enhance skills and the labour force, it is working with other organizations (as described in Indicator #43) to enhance skills and employment. These organizations include SFN, YMTA and Yukon College.

## 4.10 Education and Training

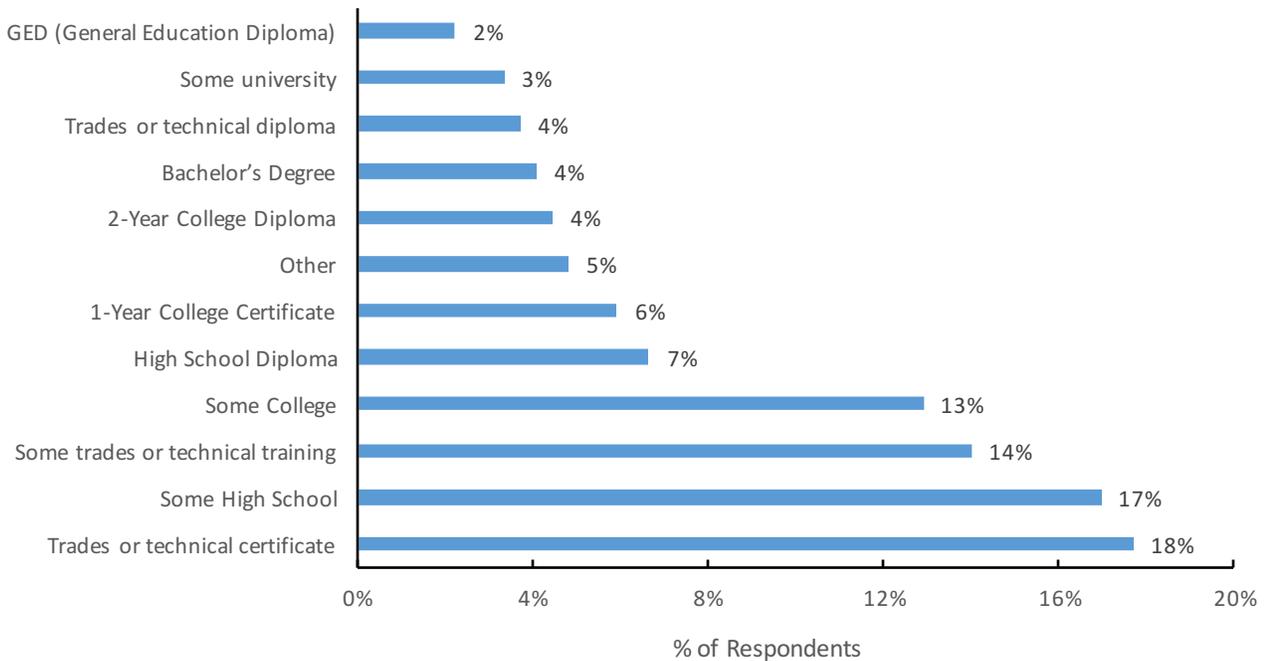
This Valued Condition uses three indicators to measure SFN workforce capacity to participate in mine-related employment opportunities: Indicator #46 (Highest level of education); Indicator #48 (School absenteeism); Indicator #49 (Possession of a valid driver’s licence).

### 4.10.1 Indicator #46

#### Highest Level of Education, Individuals of Workforce Age: 2015

The highest level of schooling obtained by adults of workforce age (i.e., age 15 and older) is an indicator of the community’s workforce capacity. The 2015 SFN Household Survey provided some insight into this based on the response of SFN citizens (age 16 and older).

**Figure 4-65. Highest Level of Education Completed of all Respondents of the 2015 SFN Household Survey**



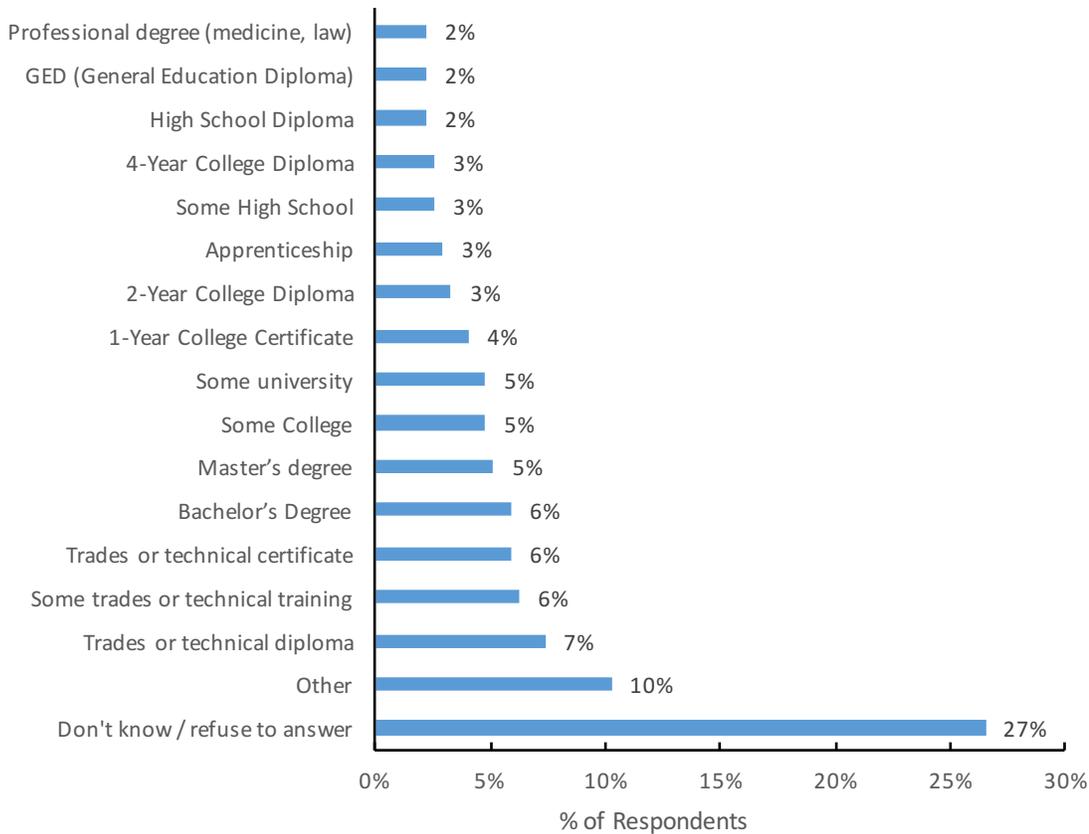
Source: 2015 Selkirk First Nation Household Survey of Living Conditions

**Notes on Figure 4-65:**

- The figure does not include categories with fewer than five respondents.
- About 35% of respondents have high school, trade or technical certificate.
- Just over 4% have a Bachelor’s Degree.

SFN survey respondents were also asked to identify the highest level of education they expected to receive (see Figure 4-66).

**Figure 4-66. Highest Level of Education Expected to be Received of all Respondents of the 2015 SFN Household Survey**



Source: 2015 Selkirk First Nation Household Survey of Living Conditions

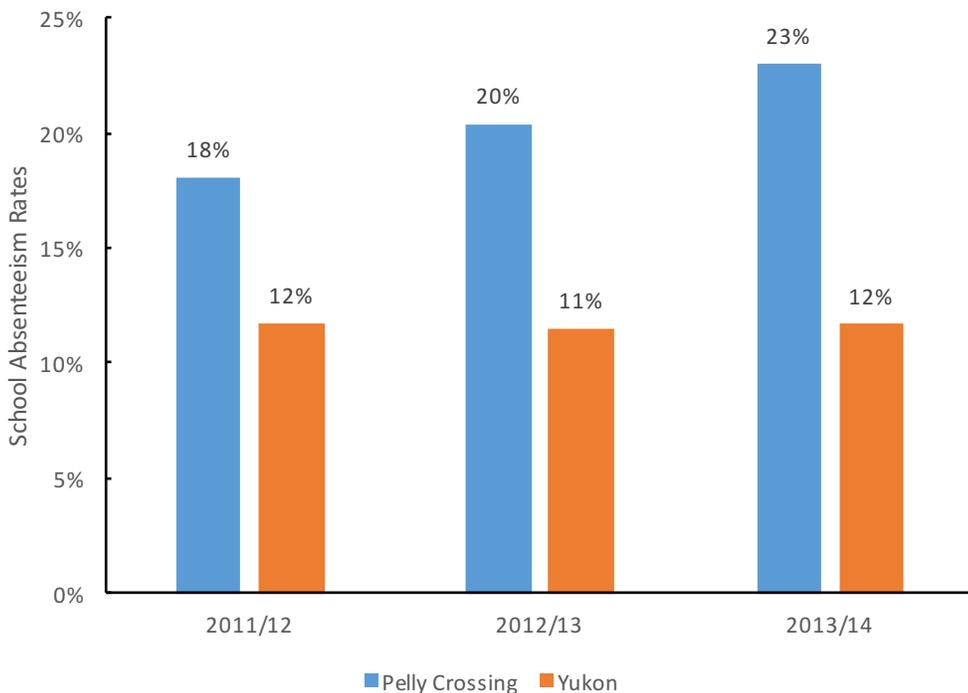
**Notes on Figure 4-66:**

- Over 19% of respondents expected to receive some trades or technical training or a certificate or a diploma for the same.
- Over 18% of respondents expected to receive some postsecondary education.

### 4.10.2 Indicator #48 School Absenteeism

School absenteeism rates are an indicator of the value placed on formal education by individuals and the community. School absenteeism in Pelly Crossing is significantly higher than for Yukon and shows an upward three-year trend through to the 2013–14 school year. Figure 4-67 compares the school absenteeism rate for the Eliza Van Bibber School in Pelly Crossing with the rate for Yukon as a whole.

**Figure 4-67. School Absenteeism Rate (%), Pelly Crossing and Yukon, 2011-12 to 2013-14**



Source: Yukon Department of Education

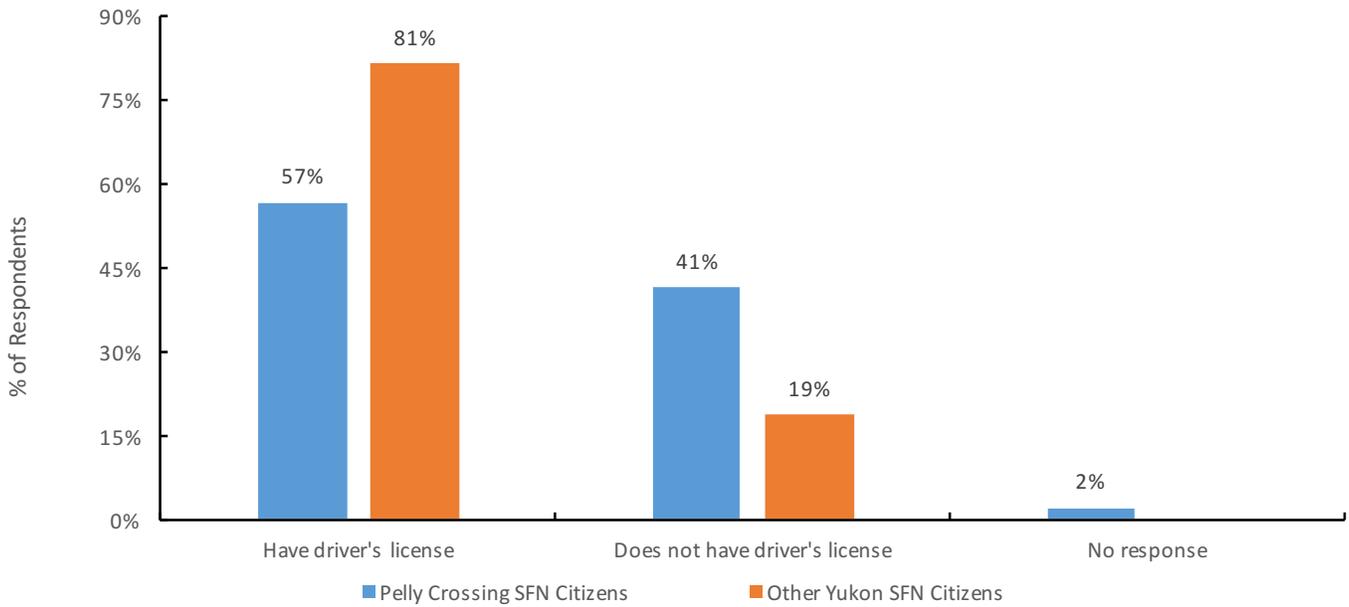
**Notes on Figure 4-67:**

- Rates were calculated using the total number of absence days supplied by Yukon Education as a percentage of total student-instructional days (the number of students enrolled in June of each school year multiplied by the number of instructional days).
- Data not received for 2014/2015.
- Yukon school absenteeism has been steady over the three periods.
- School absenteeism in Pelly Crossing is higher than for Yukon as a whole and shows an upward trend.

### 4.10.3 Indicator #49 Possession of a Valid Driver's License

Possession of a valid driver's license is a basic requirement of many entry-level and above mine-related employment opportunities.

**Figure 4-68. Percent of SFN Citizens that Possess a Driver's License: 2015**



Source: 2015 Selkirk First Nation Household Survey of Living Conditions

**Notes on Figure 4-68:**

- Over half of Pelly Crossing SFN citizens possess a driver's license.
- A higher proportion of SFN citizens in other parts of Yukon possess a driver's license in comparison with Pelly Crossing SFN citizens.

## 4.11 SFN Connection to Land & Water

Connection to land and water is a Valued Condition that is central to SFN culture and to the maintenance of traditional knowledge. Vital to this connection is the traditional use of the lands and waters within the SFN Traditional Territory. Some indicators cross-over between the Valued Condition of SFN Traditional Economy and Connection to Land and Water. They reflect the interdependencies of social, economic, cultural and health conditions of SFN citizens. This Valued Condition uses three indicators to measure connection to land and water: Indicator #39 (Participation in harvesting activities); Indicator #51 (Satisfaction with access to traditional foods; Indicator #52 (Connection to land and water as reason to stay in Pelly Crossing).

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### 4.11.1 Indicator #39

#### Percent of SFN Citizens Engaged in Harvesting Activities: 2015

See Section 4.8. This Indicator is presented in Figure 4-60.

### 4.11.2 Indicator #51

#### Level of Satisfaction with Access to Traditional Foods: 2015

Level of satisfaction with access to traditional foods through harvesting activities is an important indicator of both confidence in food security and maintaining a strong cultural connection to land and water. The level of satisfaction of Pelly Crossing SFN citizens with access to traditional foods through harvesting activities is shown in Figure 4-64. Pelly Crossing SFN citizens reported higher levels of satisfaction related to their access to traditional foods locally when compared to other Yukon SFN citizens. Over 80% of SFN citizens in Pelly Crossing reported being very or somewhat satisfied with their access to traditional foods.

### 4.11.3 Indicator #52

#### Strength of Connection to Land & Water as a Reason for Staying in Pelly Crossing: 2015

The connection to land and water is an important reason for SFN citizens who choose to live and stay in Pelly Crossing. The reasons given by SFN citizens for staying within Pelly Crossing (in 2015) is presented in Figure 4-5 (Indicator #4). Connection to land and water was cited by a large proportion of Pelly Crossing SFN citizens. Eighty-three of Pelly Crossing SFN citizens indicated 'Good hunting, trapping, fishing and other harvesting opportunities' (compared to 6% of SFN citizens in other parts of Yukon) as the reason for staying within their community. Similarly, 70% of Pelly Crossing SFN citizens reported 'Attachment to the land' as their reason for staying within their community (compared to less than 6% of SFN citizens in other parts of Yukon).

## 4.12 SFN Cultural Vitality

This Valued Condition includes information related to traditional food use and language. Some of these indicators cross-over between the Valued Conditions of Traditional Economy, Connection to Land and Water and Cultural Vitality. They reflect the interdependencies of social, economic, cultural and health conditions of SFN citizens. This Valued Condition uses two indicators to measure SFN Cultural Vitality: Indicator #40 (Amount of traditional foods consumed); Indicator #53 (Knowledge of traditional laws).

### 4.12.1 Indicator #40

#### Percent Amount of Traditional Foods Consumed by SFN Citizens: 2015

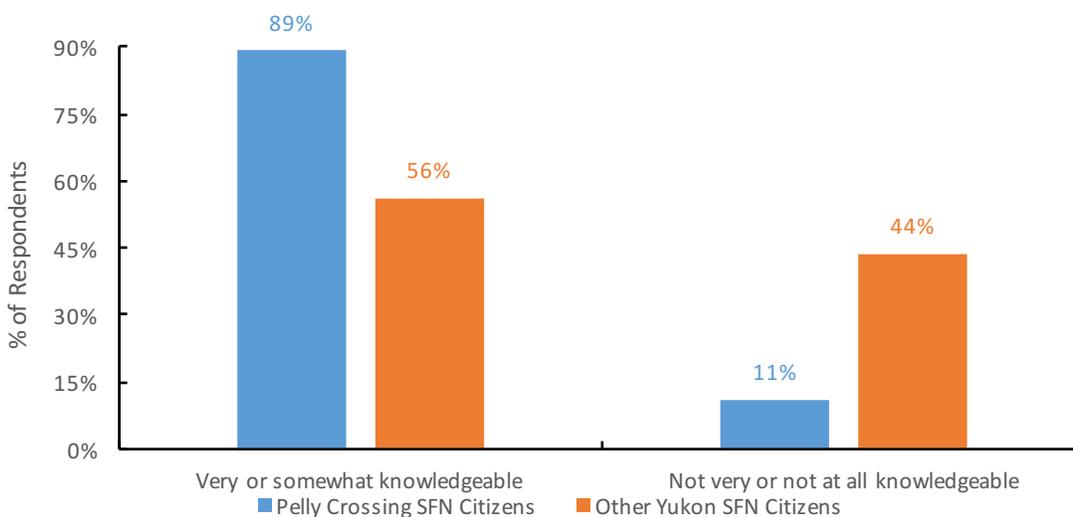
This is discussed in Section 4.8 and presented in Figure 4-61.

### 4.12.2 Indicator #53

#### Knowledge of Traditional (Dooli) Laws & Customs: 2015

Knowledge of traditional laws and customs, known collectively to SFN citizens as Dooli, is a strong indicator of SFN cultural vitality and strength.

**Figure 4-69. Knowledge of Traditional (Dooli) Laws and Customs: 2015**



Source: 2015 Selkirk First Nation Household Survey of Living Conditions

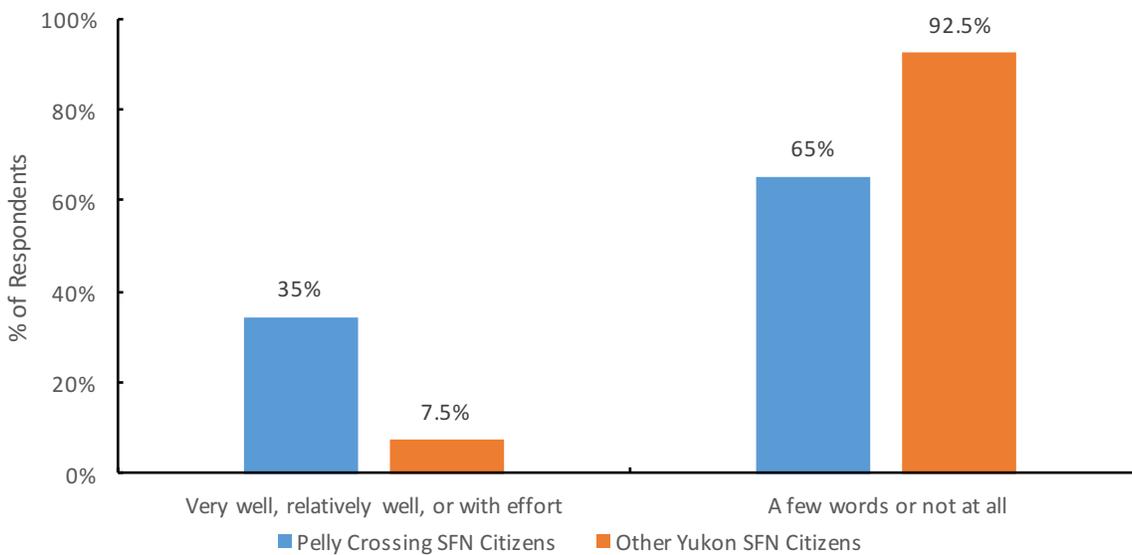
**Notes on Figure 4-69:**

- Close to 90% of Pelly Crossing SFN citizens reported that they were knowledgeable about *Dooli*, compared to 56% of Other Yukon SFN citizens.

### 4.12.3 Indicator #55 Percent of Citizens Speaking Northern Tutchone: 2015

Indicator #55 measures the percentage of the population able to speak Northern Tutchone. Figures 4-70 and 4-71 demonstrate a much higher proportion of SFN Pelly Crossing residents that speak Northern Tutchone than non-Pelly Crossing residents. This may indicate the ability to speak the language is significantly eroded once citizens live in other locations.

**Figure 4-70. Ability of all Respondents of the 2015 SFN Household Survey to Speak Northern Tutchone**

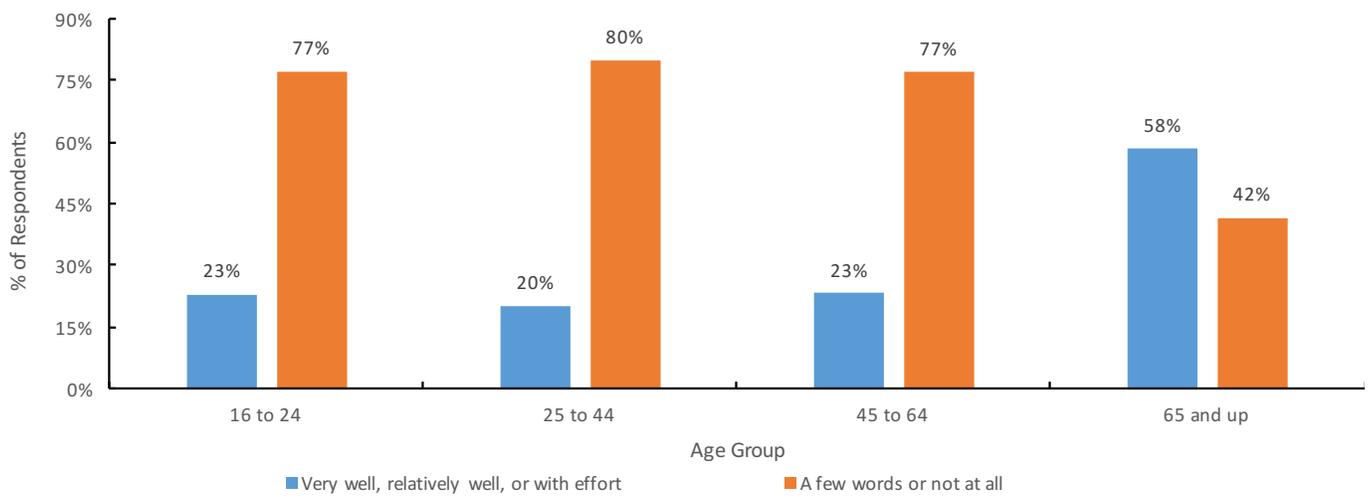


Source: 2015 Selkirk First Nation Household Survey of Living Conditions

**Notes on Figure 4-70:**

- A substantially larger proportion of SFN citizens of Pelly Crossing reported that they could speak Northern Tutchone very well, relatively well or with effort when compared to other Yukon SFN citizens.
- Over 92% of Other Yukon SFN citizens reported that they could only speak a few words of Northern Tutchone or not at all compared to 65% of SFN citizens of Pelly Crossing.

**Figure 4-71. Ability to Speak Northern Tutchone Among all SFN Citizens, Based on Age Group: 2015**



Source: 2015 Selkirk First Nation Household Survey of Living Conditions

**Notes on Figure 4-71:**

- The majority of individuals under 65 are not able to communicate in Northern Tutchone and can only speak a few words or not at all. Close to 60% of the older generation (age 65 and up) respondents indicated that they possessed good language skills or could speak the language with effort.

## 4.13 SFN Social Cohesion

Social cohesion as a Valued Condition is important in establishing, maintaining and fostering the resilience and capacity of communities to respond and adapt positively to social, economic and cultural changes introduced by developments and other undertakings. This Valued Condition uses four indicators to measure Social Cohesion: Indicator #56 (Description of initiatives by Minto to protect SFN cultural and community well-being); Indicator #57 (Level of participation in sharing or exchanging traditional food); Indicator #58 (Level of satisfaction with family and community life); and Indicator #59 (Strength of social networks as a reason for staying in community). These indicators include initiatives by Minto to support SFN cultural and community well-being as well as data from the 2015 SFN Household Survey.

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### 4.13.1 Indicator #56

#### Description of Initiatives by Minto to Protect SFN Cultural & Community Well-being

This indicator describes the activities, events, initiatives and programs by Minto to support SFN cultural and community well-being. This includes educational assistance and scholarships, and cultural awareness programs for non-Aboriginal employees. 2015 community and cultural engagement initiatives included the following:

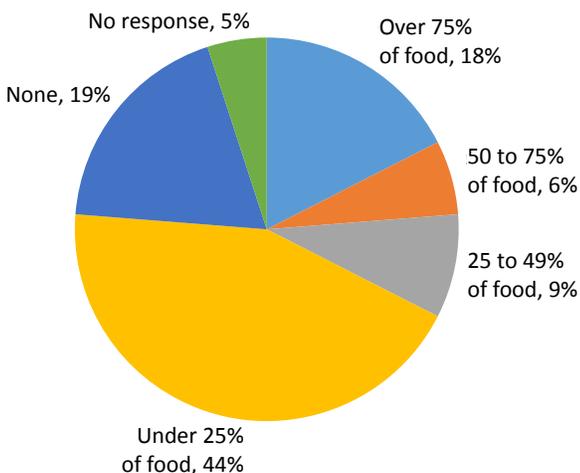
- Fort Selkirk educational tours with Selkirk citizens and Minto employees and contractors;
- Sports sponsorship for the Selkirk Bears Senior Men's Hockey team;
- Annual Christmas turkey distribution;
- High school bursaries and attendance by senior Minto management at graduation ceremonies;
- SFN Elders' workshops held at the Mine site, where Minto employees and contractors can participate in traditional cultural activities, such as beading workshops, birch bark crafts and traditional sewing;
- Traditional singing and dancing performances to promote cultural awareness – Minto hosted SFN dancers and drummers in 2015 on two separate occasions, including Juno award winning traditional musician Jerry Alfred. These performances were well received by employees at site.

### 4.13.2 Indicator #57

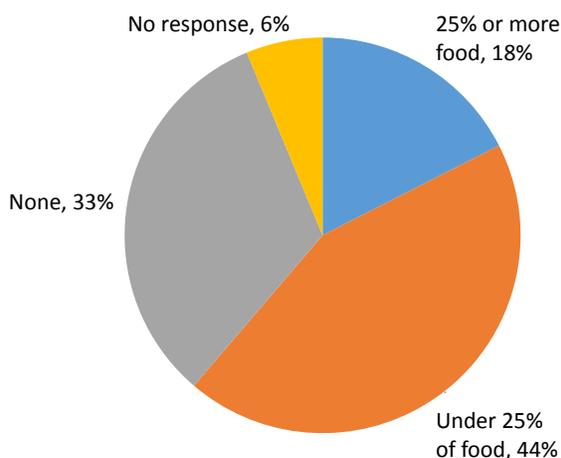
#### Level of Participation in Sharing or Exchanging Traditional Food: 2015

This indicator gathered information pertaining to the sharing and exchanging of traditional food between SFN families.

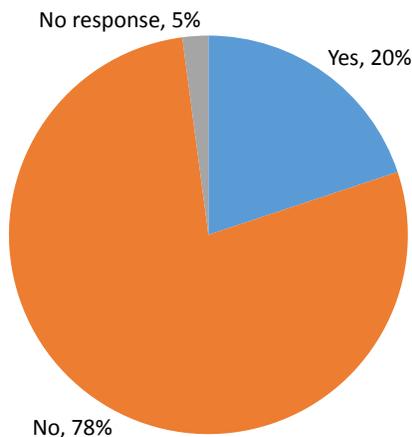
**Figure 4-72. Percent of Pelly Crossing SFN Citizens Whose Harvested Food was Given by Others**



**Figure 4-73. Percent of Pelly Crossing SFN Citizens Who Shared Harvested Food with Others**



**Figure 4-74. Percent of Pelly Crossing SFN Citizens Indicating Difficulty in Sharing Harvested Food: 2015**



Source: 2015 Selkirk First Nation Household Survey of Living Conditions

**Notes on Figure 4-72:**

- Over 75% of all Pelly Crossing SFN respondents indicated that they received at least some portion of their food from others. About 25% of the respondents received more than half of their food from others.

**Notes on Figure 4-73:**

- Over 60% of all Pelly Crossing SFN respondents indicated that they gave at least some portion of their food to others.

**Notes on Figure 4-74:**

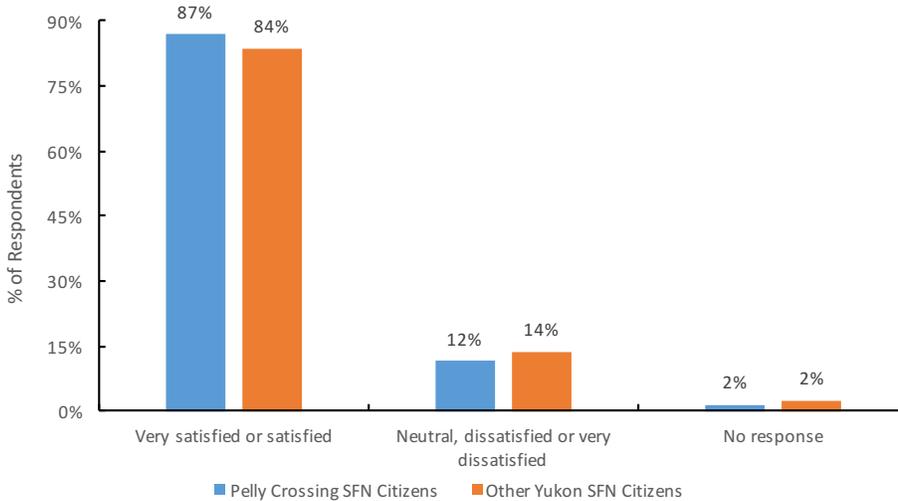
- Over 75% of all Pelly Crossing SFN respondents indicated that they had no difficulty in sharing at least some portion of their food with others. Reasons cited for difficulties in sharing or consuming harvested food included lack of time, no transportation, inadequate equipment or health.

### 4.13.3 Indicator #58

#### Level of Satisfaction with Family & Community Life: 2015

SFN citizens in Yukon were asked questions indicative of their satisfaction with family and community life. The results are presented in Figures 4-75 and 4-76.

**Figure 4-75. Percent of SFN Citizens Indicating Satisfaction with Relationships with Family Members: 2015**

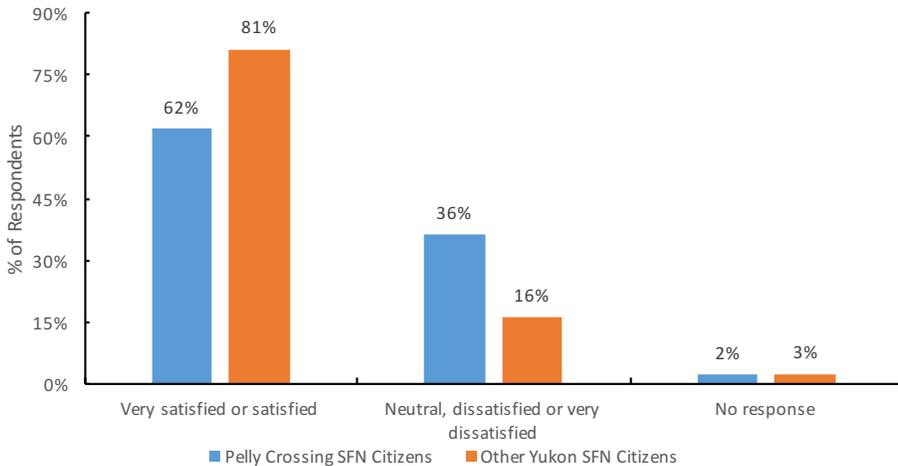


Source: 2015 Selkirk First Nation Household Survey of Living Conditions

**Notes on Figure 4-75:**

- A high proportion of SFN citizens, both in Pelly Crossing and in other parts of Yukon expressed being satisfied with their relationships with family members.

**Figure 4-76. Percent of SFN Citizens Indicating Satisfaction with Community: 2015**



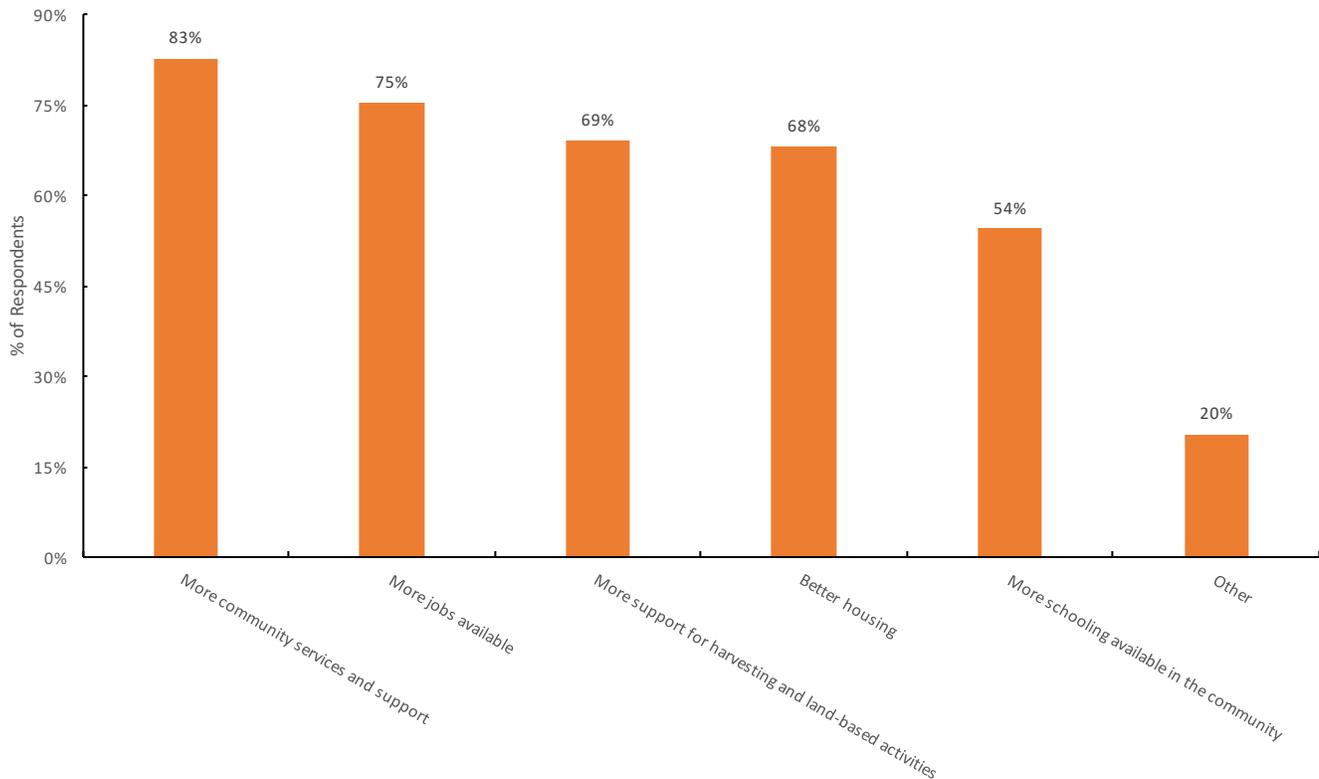
Source: 2015 Selkirk First Nation Household Survey of Living Conditions

**Notes on Figure 4-76:**

- Over 60% of Pelly Crossing SFN citizens reported being satisfied (or very satisfied) with their community compared to 81% of Other Yukon SFN citizens.

Figure 4-77 illustrates the views of SFN citizens in Pelly Crossing on what would make community life better.

**Figure 4-77. Responses of Pelly Crossing SFN Citizens to Make Community Life Better**



Source: 2015 Selkirk First Nation Household Survey of Living Conditions

**Notes on Figure 4-77:**

- SFN citizens living in Pelly Crossing cited the following key reasons that would make community life better: more community services and support, more jobs, more support for harvesting and land based activities, and better housing.

**4.13.4 Indicator #59**

**Strength of Social Networks as a Reason for Staying in Community: 2015**

Strength of social networks is a strong factor for SFN citizens in choosing to stay in Pelly Crossing, see data presented under Indicator #4 in Figure 4-5: Reasons given by SFN citizens for staying within Pelly Crossing. Over 83% of the respondents cited “Good hunting, trapping, fishing and other harvesting opportunities” as the main reason for staying. In this context, it is noted from Indicator #57 that over 60% of all Pelly Crossing SFN respondents indicated that they gave at least some portion of their food to others, and over 75% of all Pelly Crossing SFN respondents received at least some portion of their food from others. The traditional economy can be represented as a “sharing economy”, the strength of which may also be representative of strong social networks.

## 4.14 Fate Control and Preparedness

**This Valued Condition reflects the ability and capacity of Minto, SFN and the Government of Yukon to manage and control project-induced changes and impacts. These include both positive effects (employment, business opportunities, cash management, etc.) and negative effects (loss of harvest areas, substance abuse, cash management issues, etc.).**

The Socio-Economic Monitoring Program can be a valuable tool in assisting all three parties in managing and controlling project-induced changes and impacts. Monitoring results such as those described in this report can assist in early identification of both positive and negative effects and increase the likelihood of enhancing positive effects and reducing negative ones. The monitoring program only provides information and therefore tools are required to consider the information and implement possible courses of action. As well, some of the socio-economic information is only updated on a five-year cycle, which means some trends may be occurring far in advance of the reported data. Round tables may provide one mechanism to elicit information, particularly on indicators where there may be a substantial reporting lag.<sup>11</sup> The round tables may also be useful for discussion of possible adaptive management efforts that could be taken to enhance positive effects and mitigate negative ones.

This is an important condition, since it affects long-term project outcomes. Information on Indicators #60 and #61 for this Valued Condition is expected to be gathered during round table discussions. Results will be included in future reports.



Flag Raising at Fork Selkirk on Yukon River

PHOTO: SELKIRK FIRST NATION

<sup>11</sup> In this report a “round table” refers to a facilitated group discussion of SFN citizens on select matters of which they are knowledgeable and have an interest in expressing their views.

## 4.15 Boom/Bust Management

This Valued Condition refers to the ability of Minto, SFN and the Government of Yukon to manage the socio-economic effects of unexpected long-term shutdowns of the mine's operations as well as permanent closure. Boom/bust refers to socio-economic conditions of sudden growth and equally sudden downturns; these are characteristic of many resource sectors and commodity-based economies. Established adjustment measures, a better trained and educated population and a more diverse economic base, including a strong government services sector, enhances resiliency during economic downturns. This Valued Condition is measured by three indicators: Indicator #62 (Adjustment measures to manage the socio-economic effects of mine closure); Indicator #63a (Relative occupational and industry diversity and strengths in economic activity); and Indicator #63b (Changes in employment and labour force status).

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### 4.15.1 Indicator #62

#### Adjustment Measures to Manage the Socio-economic Effects of Mine Closure

This indicator will identify opportunities, transition plans and commitments to mitigate the socio-economic effects of mine closure. Further information on this indicator is expected to be gathered in future discussions between the parties and included in future reports.

### 4.15.2 Indicator #63a

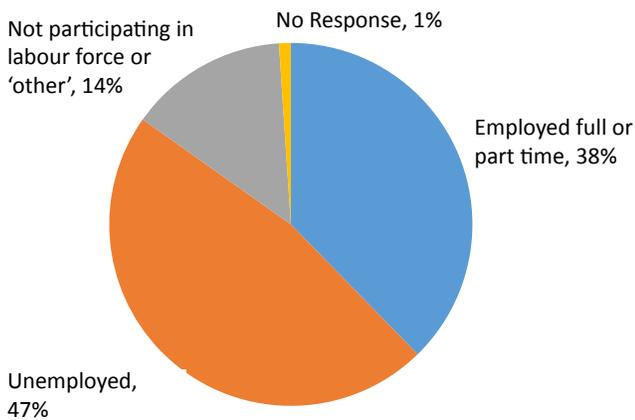
#### Relative Occupational and Industry Diversity and Strengths in Economic Activity

This indicator refers to the relative sectoral diversity in the Pelly Crossing and Yukon economies. More sectoral diversity is an indication of a greater ability of the economy to weather boom/bust events by avoiding a narrow and singular reliance on one sector for economic activity. Figure 4-53 shows the percent of the active labour force in selected industries.

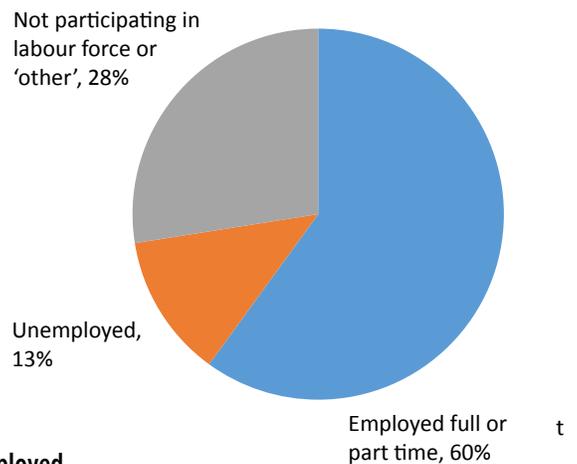
### 4.15.3 Indicator #63b Changes in Employment and Labour Force Status

The 2015 SFN Household Survey asked respondents about their employment status. In addition, additional details were also solicited, including whether respondents had permanent, temporary or seasonal employment. These are shown below in Figures 4-78 through 4-80.

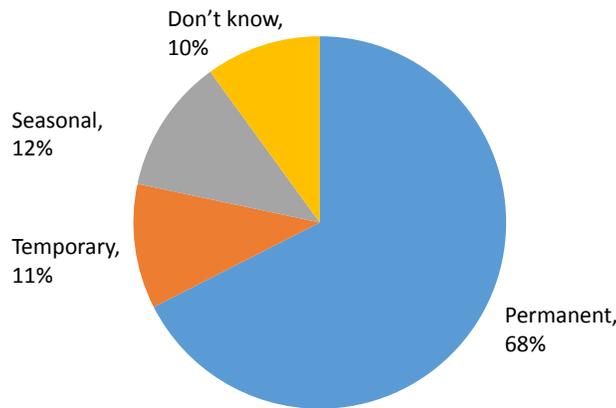
**Figure 4-78. Employment Status of Pelly Crossing SFN Citizens: 2015**



**Figure 4-79. Employment Status of Other Yukon SFN Citizens: 2015**



**Figure 4-80. Type of Employment of Employed Respondents of the 2015 SFN Household Survey**



Source: 2015 Selkirk First Nation Household Survey of Living Conditions

**Notes on Figure 4-78:**

- Just over 47% of Pelly Crossing SFN citizens reported that they were unemployed at the time of the survey.
- Only about 38% of Pelly Crossing SFN citizens reported that they were employed, either full time or part time.

**Notes on Figure 4-79:**

- 60% of other Yukon SFN citizens reported that they were employed, either full time or part time at the time of the survey.
- Less than 13% of other Yukon SFN citizens reported that they were unemployed.

**Notes on Figure 4-80:**

- Close to 68% of all employed SFN respondents reported that they had permanent employment.
- Close to 23% of all employed SFN respondents indicated that they had seasonal or temporary employment.

## 4.16 Costs and Benefits for Future Generations

The Valued Condition costs and benefits for future generations describes mine-related legacy issues, long-term effects and sustainability and is measured by four indicators: Indicator #64 (Description of matters addressed in Minto-SFN agreements); Indicator #65 (Description of socio-economic effects and initiatives that will contribute to a net positive legacy beyond the life of the mine); Indicator #68 (Perceived availability of resources to meet the needs of future generations); and Indicator #69 (Perceived state of the environment to maintain socio-ecological systems).

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### 4.16.1 Indicator #64

#### Description of Matters Addressed in Minto-SFN Agreements

This indicator highlights several benefits identified in various agreements and arrangements between SFN and Minto. Generally, these agreements are not public and therefore details cannot be disclosed; however, where information is public it has been included in this report (e.g., royalty payments).

Commitments outlined in the Cooperation Agreement between Minto and SFN include:

- net smelter return payments;
- communication and meetings between the parties;
- preservation of artifacts;
- company shares distribution;
- community development projects identified as those that have a tangible ongoing benefit, such as a water treatment plant in Pelly Crossing;
- preferred opportunity for vendors and surface providers; and
- employment opportunities.

There are also a number of commitments made in the Minto Landing permit and the surface lease agreements. These include communication commitments, lease/permit fees and environmental protection standards. Further information on this Valued Condition is expected to be gathered in future discussions between the parties.

### 4.16.2 Indicator #65

#### Description of Socio-economic Effects & Initiatives that will Contribute to a Net Positive Legacy Beyond the Life of the Mine

The revenues received and held by SFN have significantly increased the collective wealth of SFN and provide a basis for enhanced programs and services to SFN citizens now and in the future. Infrastructure improvements in areas like SFN housing - identified in the monitoring program as a widespread community concern – can be addressed. SFN as a government is a major employer of SFN citizens living in Pelly Crossing and the resources that it provides to its citizens in the areas of employment training, health care, education and cultural programming are significant. The range of benefits in these areas available for future generations resulting from mine revenues will be addressed by future SFN Councils.

The ongoing socio-economic monitoring program – a joint Minto, SFN, Government of Yukon initiative and the first of its kind in Yukon – is an important initiative for collecting information that can be used during the mine’s closure phase to better manage transitioning to an acceptable post-mine environment. The information from the program is of long-term benefit to SFN in assessing the socio-economic impacts of other proposed projects and undertakings, and establishing cooperation agreements with future developments as conditions of approval that directly benefit SFN and the community of Pelly Crossing.

Direct participation in mine operations and the bilateral relationship between Minto and SFN has resulted in a learning experience for both parties that can inform their respective future endeavours.



Yukon College Hand Games

PHOTO: SELKIRK FIRST NATION

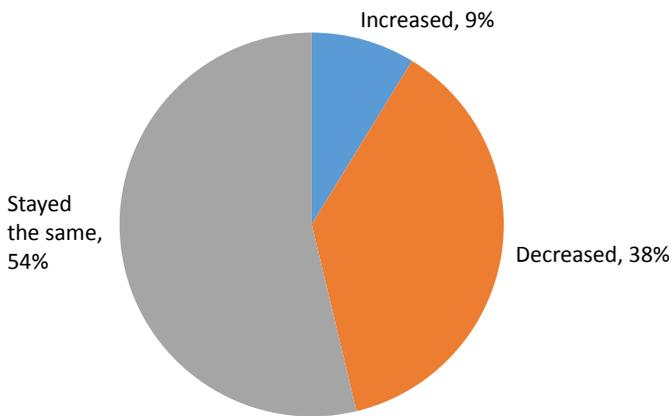
### 4.16.3 Indicator #68

#### Perceived Availability of Resources to Meet the Needs of Future Generations

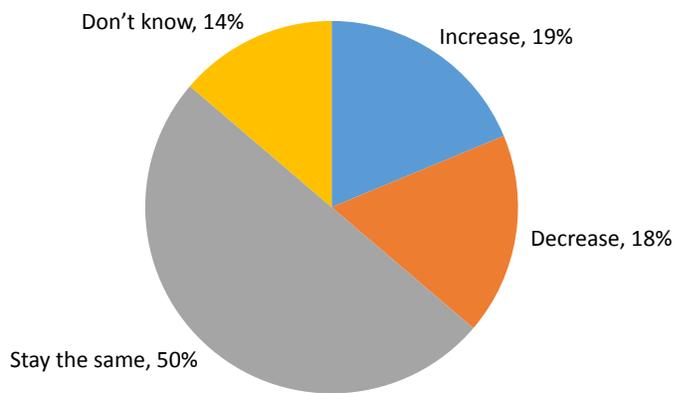
This indicator measures confidence in food security, the sustainability of wildlife resources and the continuation of harvesting activities to obtain traditional foods for SFN households in Pelly Crossing. It is based on the perceived trend of whether or not the amount of traditional food available and obtained over a 10-year period is increasing, decreasing or staying the same.

The 2015 SFN Household Survey solicited SFN citizens’ perceptions on the changes, over the past five years, of the proportion of their diet that originated from traditional activities, including hunting, trapping, fishing and gathering. In addition, SFN citizens were also asked about their perceptions regarding their likely level of participation in traditional harvesting in five years’ time through the above-mentioned traditional activities. The responses are shown below in Figures 4-81 and 4-82.

**Figure 4-81. Perceptions of Pelly Crossing SFN Citizens on the Proportion of Traditional Food Obtained Over the Past Five Years**



**Figure 4-82. Perceptions of Pelly Crossing SFN Citizens on the Amount of Traditional Food Likely to be Obtained Over the Next Five Years**



Source: 2015 Selkirk First Nation Household Survey of Living Conditions

**Notes on Figure 4-81:**

- Over half of Pelly Crossing SFN citizens surveyed indicated a high level of satisfaction with the availability of traditional food over the past five years, while a substantive percentage suggest this to be a matter of current concern.

**Notes on Figure 4-82:**

- Half of the Pelly Crossing SFN citizens surveyed indicated that they expected the availability of traditional food over the next five years to be the same as current.
- Just under a fifth of the Pelly Crossing SFN citizens surveyed perceived the availability of traditional food to increase over the next five years, while a similar number indicated that it would decrease.

#### 4.16.4 Indicator #69

##### Perceived State of the Environment to Maintain Socio-ecological Systems

The maintenance of socio-ecological systems is central to the sustainability of SFN social, cultural and economic well-being. This is recognized as a central purpose of project assessments under the *Yukon Environmental and Socio-Economic Assessment Act*, the *Yukon Umbrella Final Agreement*, and the *Selkirk First Nation Final Agreement*.

Future round table discussions will provide a means for addressing this important indicator. In addition, data associated with Indicator 68 provide a partial proxy for this indicator as SFN citizens' perceptions of the current and future availability of traditional food resources – harvested wildlife flora and fauna – provide insight into the state of the environment and the availability of renewable resources to meet the needs of future generations.

Indicator #68 data suggest general satisfaction with the current state of the environment. However, in the absence of round table discussions on this matter, it can be noted that SFN has long expressed concerns about cumulative effects from development activities in the region that can impair the current and future state of the environment to the detriment of socio-ecological systems on which SFN citizens and other Yukon residents depend.

# 5

# Recommendations



Indigenous Art

PHOTO: GOVERNMENT OF YUKON

**Based on analysis of the information presented in this report, the TPWG recommends several actions to achieve the following:**

- enhance the overall management of positive and negative socio-economic effects that may result from the mine; and
- improve the collection of information to enhance the monitoring program.

Recommendations are outlined below with respect to both Mine Management and the Technical Program. The status of the 2014 Recommendations are reported on first, followed by new Recommendations for 2015.

## 5.1 Status of 2014 Recommendations

### 5.1.1 Mine Management

1. Round Table Discussions – Terms of reference for round tables were not developed nor were round table discussions held on housing or barriers to employment for SFN citizens wanting to work at the Minto Mine. These two topics remain a high priority for SFN and citizens for round table or workshop discussion. [Lead: SFN]
2. Yukon Labour Force Participation – Upon further investigation of the 2014 report findings, there are a number of possible reasons why there is low “Yukon Local” labour force participation within the underground mining jobs at Minto – some of them are the following:
  - Historically, there has not been consistent demand for skilled underground miners in Yukon.
  - Some local training in underground mining has been offered through the Centre for Northern Innovation in Mining (CNIM). Following the training, program graduates are required to work in an entry level position to gain experience. However, the small number of entry level underground mining positions available at Minto limit their ability to complete this step.
  - Training costs for underground mining is high. The equipment is expensive and the jobs are not always conducive to a lifestyle that is family driven.
  - A potential lack of awareness in the local Yukon population of what underground mining positions entail.

The following measures were identified that could improve the number of local underground mine employees at Minto mine:

- Reaching out to CNIM to find out what they are doing to encourage people to take the underground mine training program and to identify improvements that could be made.
- Obtaining information from former program graduates that have been trained and are not working or were working underground and have found new positions (i.e., follow-up surveys with the graduates, or follow-up with current and past Minto mine underground employees).
- Identify how Minto Mine (or their contractor) promotes underground mining positions when they come available (i.e., participation in career fairs, any incentives that would convince the skilled workers to move to Yukon).
- Link into SFN roundtables on skilled training and employment at Minto Mine to identify if SFN citizens are interested in this type of work.

Based on the challenges for underground employment, as cited above, the Government of Yukon has developed a recommendation for inclusion in the 2015 report to focus on increasing the number of local employees at the Minto Mine, in general (see 2015 Mine Management Recommendation #2 below). [Lead: Government of Yukon]

### 5.1.2 Technical Program

1. Standardized Reporting – Starting, in 2015, Minto, directed all major partner contractors, to report out demographic information that will support data collection for future report timeframes. [Lead: Minto]
2. Training – Efforts made to obtain information from the Yukon Mine Training Association (YMTA) associated with SFN citizens who received mine related training between 2007 and 2014 were unsuccessful. SFN was not able to supply summaries of skills inventories, relevant training or education completed or job readiness surveys since 2007, as historical data are not available. However, results of the 2015 SFN Household Survey provide some information regarding SFN skills, training and education completed. [Lead: SFN]
3. Population Health – The health status of SFN citizens reported in the household survey provides information regarding SFN citizen health. Summary results are reported in this report. Descriptions of existing health and well-being initiatives were not available for this report. [Lead: SFN]
4. SFN and Minto did not discuss possible additional information on benefits flowing from the mine to SFN. Available information is included in the 2014 and 2015 Minto Mine Socio-economic Monitoring Reports. [Lead: SFN]
5. SFN information associated with population health initiatives or skills related inventories, relevant training or job readiness initiatives conducted between 2007 up to 2015 and any additional disclosed information by SFN and Minto associated with benefits will be reported in future Annual Reports. [Lead: SFN]

## 5.2 2015 Annual Report Recommendations

### 5.2.1 Mine Management

1. Round Table Discussions: The need for new and retrofitted housing in Pelly Crossing for SFN citizens remains a high priority for SFN. SFN continues to support dialogue and solutions to address both housing and better representation of SFN citizens in skilled positions at the Minto Mine. It is recommended that SFN with input from the TPWG develop terms of reference for round table or workshop discussions associated with a. housing and b. barriers to employment for SFN citizens. [Lead: SFN (for housing) and SFN and Minto (for barriers to employment)]
2. An additional round table or workshop discussion could be beneficial for SFN to consider long term, sustainable legacy benefits arising from the Minto Mine. [Lead: SFN and Minto]  

Round table discussion could address some or all of the following indicators under Living Conditions: Sustainability and Legacy: displacement of costs and transfer of benefits to future generations, legacy socio-economic benefits, perceived availability of resources to meet the needs of future generation and perceived state of the environment to maintain socio-ecological systems. Timing for this discussion is relevant as the mine currently anticipates moving to reclamation and closure phase by 2021.
3. Yukon Labour Force Participation – It is recommended that the Government of Yukon, working with the appropriate partners, identify measures that would enhance the participation of Yukon’s resident workforce in all positions at the Minto Mine. [Lead: Government of Yukon]
4. Training – Approach CNIM to discuss potential for data collection going forward on mine training [Lead: Government of Yukon]

### 5.2.2 Technical Program

The following recommendations address opportunities to streamline the reporting process now that the report style and content requirements are established.

1. Combine the 2016 and 2017 Annual Reports into one document. This will re-align the reporting and data periods and also take advantage of the timing of the release of the 2016 NHS which was not available until late in 2017.
2. Reduce data content of future annual reports to only include indicators where new information and data are available for the reporting year. The current year data should be combined with associated cumulative (historic) data from previous years to document any applicable trends.
  - a) Year-over-year this will typically provide Minto-mine specific data and other indicators for which qualitative information is provided.
  - b) Years in which National Household Survey data and SFN household survey data are available will result in a more comprehensive treatment of the full set of indicators. Report years in which NHS and SFN survey data are not included will reference the reports where that data is included.

## Appendix 1 – Valued Conditions and Socio-economic Indicators

This appendix was adapted from Appendix A of the *Minto Mine Socio-economic Effects Monitoring Program: Program Elements and Information Requirements* (as amended in 2018).<sup>12</sup> It lists all 65 of the Valued Conditions, indicators, and expected information sources for those indicators and the rationale for each indicator as developed by the Tri-Partite Working Group and amended by the Parties. Sixty of 65 of them are addressed in this report. No data or information are available for Indicators #45, #60, #61, #62 and #66. Please note that Table A1-1 below has been updated for the 2015 Report. General reasons for revisions to the indicators as presented previously in the 2014 Report are described in section 1.2 above. Revisions largely apply to those indicators that rely on SFN data sources for the 2015 Report. The numbered sequence of indicators in Appendix 1 has some gaps. As well, data are currently unavailable for some indicators and for this reason are not addressed in this report. Where appropriate, some indicators are applied to and measure more than a single Valued Condition.

**Table A1-1. Socio-economic Conditions Monitored in Pelly Crossing and Yukon**

VALUED CONDITION	IND.#	INDICATOR	SCALE AND FREQUENCY	DATA SOURCE	RATIONALE
<b>Living Condition: Population and Health</b>					
Community Stability and Well-being	1	SFN citizens by residency	Pelly/ Whitehorse/ Yukon:  5 year  Pelly: annual	Census; 2015 SFN Household Survey;  SFN administrative data	Reflects life choices affected by local and non-local conditions and proximity to Minto-related opportunities
	2	Duration of residency	Pelly: annual	YBS	Indicative of strength of ties to community
	3	Net migration	Pelly/ Whitehorse/ Yukon: annual	Government of Yukon Health	Affects institutional/family stability
	4	SFN reasons for staying in Pelly Crossing	Pelly/ Whitehorse: 5 year	2015 SFN Household Survey	Identifies socio-economic conditions of stability and well-being and the strengths of family and social networks
	5	Crime severity	Pelly/Yukon: annual  Pelly: 5 year	Canadian Centre for Justice;  2015 SFN Household Survey	Incidence of violent/non-violent crime reflects +/- conditions

<sup>12</sup> Selkirk First Nation, Government of Yukon and Minto Explorations Ltd. September 10, 2013. *Minto Mine Socio-economic Monitoring Program: Components, Information and Program Requirements*, pp. 14–23.

**Table A1-1. Socio-economic Conditions Monitored in Pelly Crossing and Yukon**

VALUED CONDITION	IND.#	INDICATOR	SCALE AND FREQUENCY	DATA SOURCE	RATIONALE
<b>Living Condition: Population and Health, continued</b>					
Family Stability and Well-being	6	Family structure	Pelly/ Whitehorse: 5 year	Census; 2015 SFN Household Survey	Family membership and frequency of time together reflects relative cohesion
	8	Community Safety	Pelly: 5 year	Canadian Centre for Justice;  2015 SFN Household Survey	Reflects +/- conditions
	9	Frequency of household moves in the last 5 years and reasons	Pelly/ Whitehorse: 5 year	2015 SFN Household Survey	Reflects ties to community, and family stability/stress and the value of certain socio-economic factors affecting life choice and residency
Health	10	Minto and contractors safety statistics	Site-wide	Minto Mine	Work-related injury
	11	Mental health	Pelly: 5 year  Pelly: periodic	2015 SFN Household Survey; SFN Round table	Reflects a core health condition based on self-assessment
	12	Addictions	Pelly: 5 year  Pelly: periodic	2015 SFN Household Survey; SFN Round table	Reflects a core health condition based on self-assessment
	13	Physical health	Pelly: 5 year  Pelly: periodic	2015 SFN Household Survey; SFN Round table	Reflects a core health condition based on self-assessment

**Table A1-1. Socio-economic Conditions Monitored in Pelly Crossing and Yukon**

VALUED CONDITION	IND.#	INDICATOR	SCALE AND FREQUENCY	DATA SOURCE	RATIONALE
<b>Living Condition: Population and Health, continued</b>					
Housing	14	Housing satisfaction	Pelly: 5 year Pelly: periodic	2015 SFN Household Survey; SFN Round table	Reflects suitability, adequacy and availability of housing
	15	Housing Condition	Pelly: periodic	SFN Round table	Reflects quality of stock and state of repairs
<b>Living Condition: Material Well-being</b>					
Income and Distribution	16	Average employment income by residency	Pelly/ Whitehorse/ Yukon/ Canada: annual	Minto Mine	Direct income impacts
	17	Average employment income by Minto and Contractors	SFN/Other FN/ Yukon/Canada Pelly/ Whitehorse/ Other Yukon/ Canada: annual	Minto Mine	Direct income impacts
	18	Minto and contractors annual and cumulative total employee income by group	Pelly/ Yukon/ Canada: annual	Minto Mine	Direct and cumulative income impacts
	19	Average and distributed household income	Pelly/ Whitehorse/ Yukon: 5 year	Census; 2015 SFN Household Survey	Reflects relative material wealth
	20	Average and distributed personal income	Pelly/ Whitehorse/ Yukon: 5 year	Census; 2015 SFN Household Survey	Reflects relative material wealth
	21	Income by source	Pelly/ Whitehorse/ Yukon: 5 year	Census; 2015 SFN Household Survey	Reflects dependency/self-reliance from earned and unearned income sources

**Table A1-1. Socio-economic Conditions Monitored in Pelly Crossing and Yukon**

VALUED CONDITION	IND.#	INDICATOR	SCALE AND FREQUENCY	DATA SOURCE	RATIONALE
<b>Living Condition: Material Well-being, continued</b>					
	22	Number and value of social assistance cases	Pelly/ Whitehorse/ Yukon: annual	SFN/ Government of Yukon	Reflects dependency/self-reliance
	22b	Satisfaction with financial circumstances	Pelly/ Whitehorse/ Rural Yukon: 5 year	2015 SFN Household Survey	Measures satisfaction with financial circumstance, including income
Employment	23	Minto northern employment by group	Pelly/ Yukon/ Canada: biannual	Minto Mine	Direct employment impacts
	24	Minto northern employment by residency	Pelly/ Whitehorse/ Yukon/ Canada: biannual	Minto Mine	Direct employment impacts
	25	Employment by contractors	Pelly/ Yukon/ Canada: biannual	Minto Mine	Direct employment impacts
	26	Minto new hires for operations by group	SFN/Other FN/ Yukon/Canada (6 months)	Minto Mine	Direct employment impacts
	27	Minto employment by job category and group	Management (Aboriginal (SFN; others), Yukon non-Aboriginal, total Yukon, other Canadian, total): biannual	Minto Mine	Direct employment impacts
			Professional (Aboriginal (SFN; others), Yukon non-Aboriginal, total Yukon, other Canadian, total): biannual	Minto Mine	Direct employment impacts

**Table A1-1. Socio-economic Conditions Monitored in Pelly Crossing and Yukon**

VALUED CONDITION	IND.#	INDICATOR	SCALE AND FREQUENCY	DATA SOURCE	RATIONALE
<b>Living Condition: Material Well-being, continued</b>					
	27	Minto employment by job category and group	Skilled (Aboriginal (SFN; others), Yukon non-Aboriginal, total Yukon, other Canadian, total): biannual	Minto Mine	Direct employment impacts
			Semi-skilled (Aboriginal (SFN; others), Yukon non-Aboriginal, total Yukon, other Canadian, total): biannual	Minto Mine	Direct employment impacts
			Entry-level (Aboriginal (SFN; others), Yukon non-Aboriginal, total Yukon, other Canadian, total): biannual	Minto Mine	Direct employment impacts
	28	Employment rate	Pelly/ Whitehorse/ Yukon: annual Pelly: 5 year	YBS; 2015 SFN Household Survey	Wage economy participation
	29	Unemployment rate	Pelly/ Whitehorse/ Yukon: annual Pelly: 5 year	YBS; 2015 SFN Household Survey	Wage economy non-participation
	30	Participation rate	Pelly/ Whitehorse/ Yukon: annual Pelly: 5 year	YBS; 2015 SFN Household Survey	Labour force participation and willingness to work

**Table A1-1. Socio-economic Conditions Monitored in Pelly Crossing and Yukon**

VALUED CONDITION	IND.#	INDICATOR	SCALE AND FREQUENCY	DATA SOURCE	RATIONALE
<b>Living Condition: Material Well-being, continued</b>					
	31	Employment by location and residency	Pelly/ Whitehorse: 5 year	2015 SFN Household Survey	Work site and travel work-travel factors: Pelly, Minto and Whitehorse
	32	Employment by sector	Pelly: 5 year	Census	Preference and capacity re: economic participation
Business	33	Minto Mine operations and capital expenditures by group	Pelly/ Yukon/ Canada: annual	Minto Mine	Direct expenditure impacts
	34	Minto annual and cumulative capital and operations expenditures by group	Pelly/ Yukon/ Canada: annual	Minto Mine	Direct expenditure impacts
	35	Minto spending on Yukon vendors	Pelly/ Yukon: annual	Minto Mine	Direct expenditure impacts on a number of Yukon businesses
	36	Minto royalty payments	SFN/ Yukon	Minto Mine	Revenues to governments
	37	Minto property tax payments and other fees	SFN/ Yukon	Minto Mine	Revenues to governments
	10	Minto and Contractors safety statistics	Site-wide	Minto Mine	Costs for workers, employers and society

**Table A1-1. Socio-economic Conditions Monitored in Pelly Crossing and Yukon**

VALUED CONDITION	IND.#	INDICATOR	SCALE AND FREQUENCY	DATA SOURCE	RATIONALE
<b>Living Condition: Material Well-being, continued</b>					
SFN Traditional Economy	39	Percentage of workforce aged group engaged in harvesting activities	Pelly/ Whitehorse: 5 year	2015 SFN Household Survey	Participation, opportunity and preference re: hunting, trapping and fishing
	40	Percentage amount of traditional foods consumed	Pelly/ Whitehorse: 5 year	2015 SFN Household Survey	Economic contribution to household domestic needs
	41	Satisfaction with the quality and availability of traditional foods	Pelly/ Whitehorse: 5 year	2015 SFN Household Survey	Sufficiency of wildlife resources and harvest sharing to meet domestic needs (quality and quantity) and contribute to food security
	51	Level of satisfaction with access to traditional foods	Pelly/ Whitehorse: 5 year	2015 SFN Household Survey	Sufficiency of harvest access (e.g. time, equipment, money, competition)
<b>Living Condition: Capacity, Training and Education</b>					
Employment and Workforce Development	42	High level description of programs, events and initiatives to facilitate and enhance skills development and labour force development through employment and pre-employment undertakings (including SFN-specific information)	Pelly/ Yukon: annual	Minto Mine	Commitments to employment and labour force development

**Table A1-1. Socio-economic Conditions Monitored in Pelly Crossing and Yukon**

VALUED CONDITION	IND.#	INDICATOR	SCALE AND FREQUENCY	DATA SOURCE	RATIONALE
<b>Living Condition: Capacity, Training and Education, continued</b>					
	43	Details of programs, events and initiatives to facilitate and enhance skills development and labour force development through employment and pre-employment undertakings (including SFN-specific information)	Pelly/ Yukon: annual	Minto Mine	Commitments to employment and labour force development
	44	Description of partnership arrangements with governments to accomplish the above (including SFN-specific information)	Pelly/ Yukon: annual	Minto Mine	Commitments to employment and labour force development
Education and Training	46	Highest level of education and training completed or expected by workforce aged individuals	Pelly: 5 year	Census;  2015 SFN Household Survey	Labour force capacity and resilience to boom/bust scenarios
	48	School absenteeism	Pelly: annual	Government of Yukon Education	Barriers to individual capacity building and deterrents
	49	Possession of a valid driver's license	Pelly/ Whitehorse: 5 year	2015 SFN Household Survey	Revised 49 to capture survey data.

**Table A1-1. Socio-economic Conditions Monitored in Pelly Crossing and Yukon**

VALUED CONDITION	IND.#	INDICATOR	SCALE AND FREQUENCY	DATA SOURCE	RATIONALE
<b>Living Condition: Cultural Well-being</b>					
Connection to Land and Water	39	Percentage of workforce aged group engaged in harvesting activities	Pelly/ Whitehorse: 5 year	2015 SFN Household Survey	Participation in land/water-based activities is central to SFN culture and the maintenance of traditional knowledge
	51	Level of satisfaction with access to traditional foods	Pelly/ Whitehorse: 5 year	2015 SFN Household Survey	Sufficiency of harvest access (e.g. time, equipment, money, competition)
	52	Strength of connection as a reason for staying in chosen community	Pelly/ Whitehorse: 5 year	2015 SFN Household Survey	Strength of condition to land and water as a favoured condition for staying in Pelly Crossing is an indicator of cultural identity and well-being
Cultural Vitality	40	Percentage amount of traditional foods	Pelly/ Whitehorse: 5 year	2015 SFN Household Survey	Consumption of traditional foods is central to SFN cultural continuity
	53	Knowledge of Dooli laws and custom	Pelly/ Whitehorse: 5 year	2015 SFN Household Survey	Traditional laws and customs are culturally significant instruments of social organization and cohesion
	55	% of citizens speaking Northern Tutchone	Pelly/ Whitehorse: 5 year	2015 SFN Household Survey	Language as a reflection of cultural continuity.

**Table A1-1. Socio-economic Conditions Monitored in Pelly Crossing and Yukon**

VALUED CONDITION	IND.#	INDICATOR	SCALE AND FREQUENCY	DATA SOURCE	RATIONALE
<b>Living Condition: Cultural Well-being, continued</b>					
Social Cohesion	56	Description of activities, events, initiatives, programs and expenditures by Minto to protect SFN cultural and community well-being, including educational assistance and scholarships, cultural awareness programs for non-Aboriginal employees, support for traditional and cultural activities, language programs, employee assistance programs (for cash management, alcohol and drug counseling, stress management), and family and community healthy living initiatives, etc.	Pelly: annual	Minto Mine	Commitments to maintenance of social cohesion
	57	Level of participation in sharing or exchanging traditional food	Pelly/ Whitehorse: 5 year	2015 SFN Household Survey	Inter-household and intra-family sharing and social capital support
	58	Level of satisfaction with family and community life	Pelly/ Whitehorse: 5 year	2015 SFN Household Survey	General satisfaction with social life is indicative of social harmony
	59	Strength of family and social networks as reasons for staying in community	Pelly: 5 year	2015 SFN Household Survey	State of social networks are reflective social and community cohesion

**Table A1-1. Socio-economic Conditions Monitored in Pelly Crossing and Yukon**

VALUED CONDITION	IND.#	INDICATOR	SCALE AND FREQUENCY	DATA SOURCE	RATIONALE
<b>Living Condition: Sustainability and Legacy</b>					
Fate Control and Preparedness	60	Ability of Minto/SFN/the Government of Yukon to manage Project-related socio-economic commitments, impacts and risks	Pelly/Minto/Yukon: annual	Minto/Government of Yukon/SFN Round tables	Capacity, ability and preparedness of Minto, the Government of Yukon and SFN to manage predicted impacts and surprises
	61	Resilience of households to manage stresses resulting from project-specific and cumulative effects	Pelly: periodic	SFN Round table	Relative capacity of households to manage change
Boom/Bust Management	62	Adjustment measures to manage the socio-economic effects of mine closure	Pelly/Yukon: annual	Minto/Government of Yukon/SFN Round tables	Identified opportunities, transition plans and commitments to mitigate the socio-economic effects of closure
	63	Relative occupational and sectoral diversity and strengths in economic activity	Pelly/Yukon: 5 year	Census	Contribution of project economic impacts to diversify local and regional economies
	63b	Changes in employment and labour force status	Pelly/Whitehorse/Yukon: 5 year Pelly: 5 year	YBS; 2015 SFN Household Survey	Reflects change in participation in regional economy

**Table A1-1. Socio-economic Conditions Monitored in Pelly Crossing and Yukon**

VALUED CONDITION	IND.#	INDICATOR	SCALE AND FREQUENCY	DATA SOURCE	RATIONALE
<b>Living Condition: Sustainability and Legacy, continued</b>					
Costs and Benefits for Future Generations	64	General description of matters addressed in Minto-SFN agreements	Pelly: biannual	Minto Mine	Project contributions to sustainability
	65	Description of socio-economic effects and initiatives that will contribute to a net positive legacy beyond the life of the mine	Pelly/ Yukon: annual	Minto Mine	Project contributions to sustainability
	66	Displacement of costs and transfer of benefits to future generations	Pelly/ Yukon: annual  Data unavailable at this time	Minto/ Government of Yukon/ SFN Round tables	Identified gains, losses and net benefits for future generations
	68	Perceived availability of resources to meet the needs of future generations	Pelly/ Yukon: annual  Data unavailable at this time	Minto/ Government of Yukon/ SFN Round tables	Effects on sustainability
	69	Perceived state of the environment to maintain socio-ecological systems	Pelly/ Yukon: annual  Pelly: 5 year	Minto/ Government of Yukon/ SFN Round tables;  2015 SFN Household Survey	Effects on sustainability

## Appendix 2 – Minto Mine, Summary Timeline

The development of mineral properties rarely follows a straight and simple path from discovery through mining and then to closure and reclamation. Minto Mine is no exception. It has experienced changes of ownership, starts and stops in mine development, and the ongoing expansion of ore reserves on the property, which have extended the expected mine life. Table A2-1 provides key milestones in the progress of the Minto property from discovery through to 2014. A more detailed timeline can be found in the 2014 report. The information in Table A2-1 is drawn from the Yukon Geological Survey,<sup>13</sup> Capstone Mining Corp.'s history summary<sup>14</sup> and Capstone's news releases.<sup>15</sup>

**Table A2-1. A Summary Timeline of the Minto Mine**

DATE	EVENT
1970s	The Minto claim group is staked by Asarco and Silver Standard Mines
	A group managed by United Keno Hill Mines (UKHM) stakes the adjoining DEF claim group to the north of Minto
Early 1990s	UKHM holdings in the DEF claim group acquired by Falconbridge
	Teck and Asarco each sell their interest in the Minto claims to Minto Explorations Ltd.
1996	Minto Explorations Ltd. begins development of the mine
1997	SFN signs final land claim agreement that includes much of the Minto Mine area as Category A Settlement Land (surface and subsurface rights)
	SFN and Minto Explorations Ltd. sign a comprehensive cooperation agreement
1998	Type A water licence issued
1999	Mineral production licence issued and construction started
2000	Before construction is suspended due to low mineral prices, the access road is complete, sites are prepared for the camp and mill, and some mill equipment is purchased
2005	Sherwood Mining Corporation acquires Minto Explorations Ltd.
2006	Mine development begins
2007	Commercial production is achieved
2008	Sherwood merges with Capstone Mining Corp.
2009	Revised cooperation agreement between Minto Explorations Ltd. and the SFN is signed; it includes a net smelter return of between 1.0% and 1.5% on production, plus various commitments in respect of employment, contracting, training, scholarship opportunities and other matters

<sup>13</sup> Yukon Geological Survey. November 2008. Yukon Mineral Property Update 2008.

<sup>14</sup> See <http://capstonemining.com/operations/minto/history/default.aspx> (accessed February 5, 2015).

<sup>15</sup> See <http://capstonemining.com/news/default.aspx> (accessed February 5, 2015).

**Table A2-1. A Summary Timeline of the Minto Mine**

DATE	EVENT
2010	Phase IV expansion project proposal submitted to the YESAB
2011	Decision documents from the Government of Yukon and SFN issued on Phase IV expansion
2012	Underground development commenced
2013	Phase V/VI expansion project proposal submitted to the YESAB
2014	Open-pit mining suspended; milling continues using a blend of ore from underground and stockpiles
	The YESAB issued recommendations for Phase V/VI expansion, the Government of Yukon and SFN issued YESAA decision documents on Phase V/VI expansion and the Government of Yukon issued an amended Quartz Mining Licence
2015	Water Use Licence renewal issued



