

**EASTERN ATHABASCA REGIONAL
MONITORING PROGRAM
2016/2017 COMMUNITY REPORT**

Final Report

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EXECUTIVE SUMMARY

The Eastern Athabasca Regional Monitoring Program (EARMP) was established in 2011 under the Province of Saskatchewan's Boreal Watershed Initiative. The EARMP community program was established to monitor the safety of traditionally harvested country foods by collecting and testing representative water, fish, berry, and mammal samples from the seven communities located in the region. Harvesting and consuming traditional country foods (berries, fish, and wild game) are an important part of the culture in northern Saskatchewan and contribute to an overall healthy lifestyle through physical activity and healthy eating. The intent of the EARMP community program is to provide confidence to community members that their traditional country foods are safe to eat today and will remain safe for future generations.

From September 2016 to March 2017 samples of lake trout, lake whitefish, blueberry, bog cranberry, barren-ground caribou meat, moose meat, and caribou and moose organs (heart, liver, and kidney) were collected from the EARMP communities. All samples were collected independently by, or with the aid of, community members from Black Lake Denesuline Nation, Camsell Portage, Fond du Lac Denesuline Nation, Stony Rapids, Uranium City, Wollaston Lake, and Hatchet Lake Denesuline Nation. Levels of chemicals in country foods submitted for testing were low and were similar to baseline and regional levels. Cadmium levels in moose meat from Uranium City and mercury levels in lake trout from Fond du Lac, which have been identified as elevated during previous monitoring years, were found to be low and within the regional reference range.

All country foods assessed in 2016/2017 from each community are considered safe to eat.

1.0 INTRODUCTION

1.1 Background

The Eastern Athabasca Regional Monitoring Program (EARMP) is a joint, long-term environmental monitoring program established in 2011 under the Province of Saskatchewan's Boreal Watershed Initiative. The program is supported by contributions from several stakeholders including Cameco Corporation, AREVA Resources Canada Inc., and the Saskatchewan Ministry of Environment. One of the primary goals of the Boreal Watershed Initiative is to assess the ecological integrity of Saskatchewan's northern watersheds in order to address potential environmental concerns and to identify sustainable management practices in the region. The EARMP was designed to identify potential cumulative effects downstream of uranium mining and milling operations in the Eastern Athabasca region of northern Saskatchewan (Figure 1).

Cumulative effects are defined as impacts on the environment that result from the incremental impact of an action when added to other past, present, and foreseeable future actions (Joint Panel 1992). Cumulative effects might occur when projects overlap spatially, such as when two watersheds exposed to uranium mining and milling activities converge. Cumulative effects may also occur temporally if contaminants are emitted into the environment over extended periods of time. The EARMP was developed to establish baseline conditions and facilitate the examination of spatial and temporal changes over the long term.

Extensive amounts of environmental monitoring are completed near each uranium mining and milling operation in northern Saskatchewan, which are regulated by both federal and provincial agencies including Environment and Climate Change Canada, the Canadian Nuclear Safety Commission, and the Saskatchewan Ministry of Environment. In addition, a community sampling occurred through the Athabasca Working Group (AWG) Environmental Monitoring Program for 17 years (2000-2017) and is now being managed under the new Ya'Thi Néné Collaboration Agreement. The EARMP was designed to complement other monitoring programs and allows a more comprehensive evaluation of potential cumulative effects from industry in northern Saskatchewan.

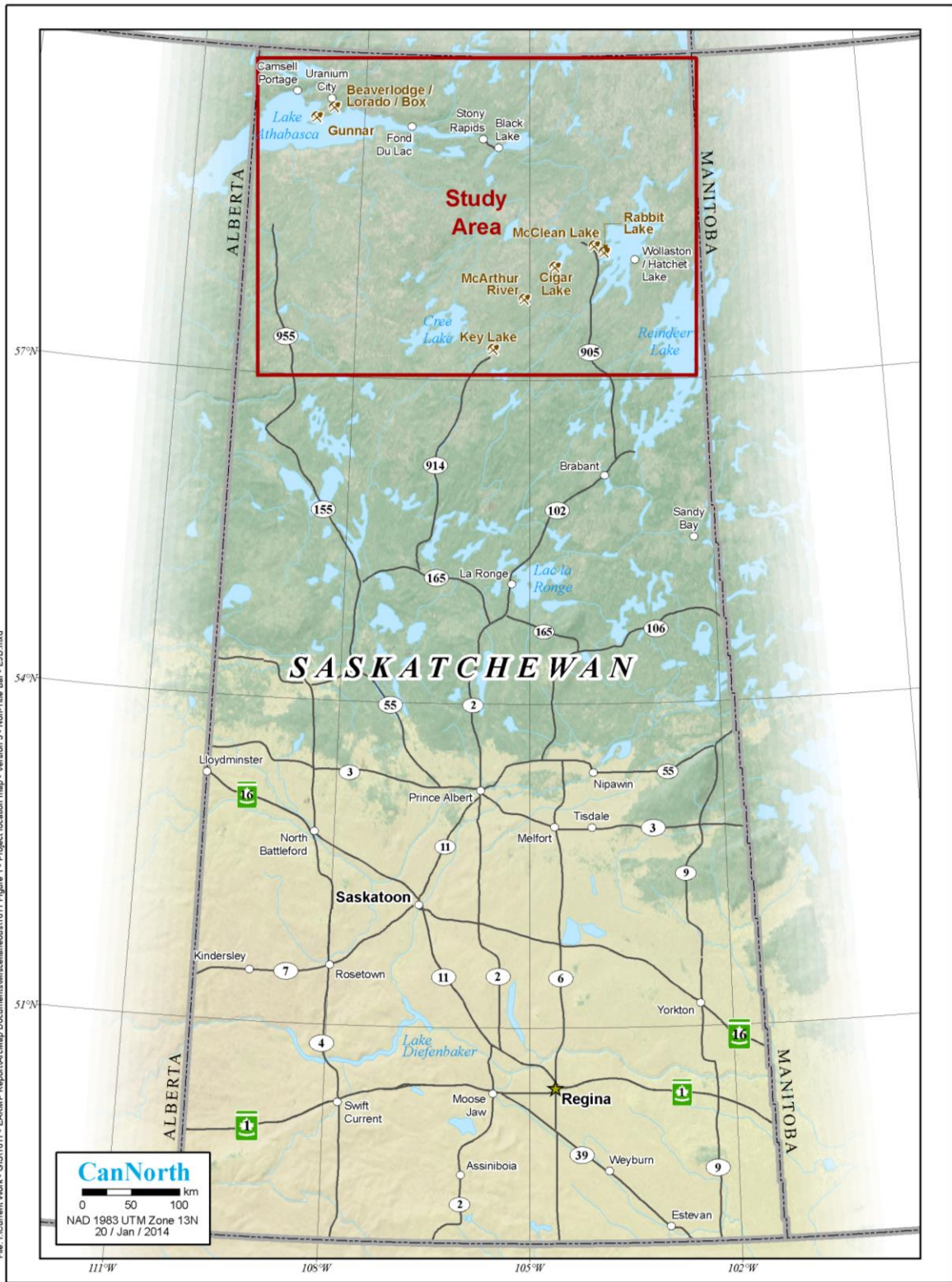


Figure 1
Study location.

The EARMP framework includes two programs: a community program and a technical program. The technical program was established to monitor potential long-term changes in the aquatic environment far far-field downstream of uranium mining and milling operations in the Eastern Athabasca region. Information from the technical program is presented in a separate report. The community program was established to monitor the safety of traditionally harvested country foods by collecting and testing water, fish, berry, and mammal samples from the seven communities located in the Athabasca region. The objective of this document is to present an update of the results from the sampling program completed in 2016/2017.

1.1.1 Uranium Mining and Milling Operations in the Region

There are five active uranium mines in the Eastern Athabasca region. These include Key Lake, McArthur River, McClean Lake, Rabbit Lake, and Cigar Lake. In addition, other decommissioned and/or abandoned uranium mine sites are located in the region and near the community of Uranium City. The locations of these uranium mining and milling operations are presented in Figure 2. Extensive monitoring in the local study areas generally includes testing the air, soil, vegetation, water, sediment, benthic invertebrates, and fish (Arcadis 2015; AREVA 2016; CanNorth 2016; EcoMetrix 2015a, 2015b). These sampling programs are designed specifically for each mine and are a requirement under the provincial operating licence and the Canadian Nuclear Safety Commissions (CNSC) license condition handbook.

1.1.2 Communities in the Region

There are seven communities in the region, including Black Lake Denesuline First Nation, Fond du Lac Denesuline First Nation, Stony Rapids, Wollaston Lake, Hatchet Lake Denesuline First Nation, Camsell Portage, and Uranium City (Figure 2). For the EARMP community program, the communities of Wollaston Lake and Hatchet Lake Denesuline First Nation were assessed together, creating a total of six community study areas.

1.2 EARMP Community Program Objectives

The EARMP community program was developed to address potential concerns about the safety of country foods that community members routinely consume. Country foods can

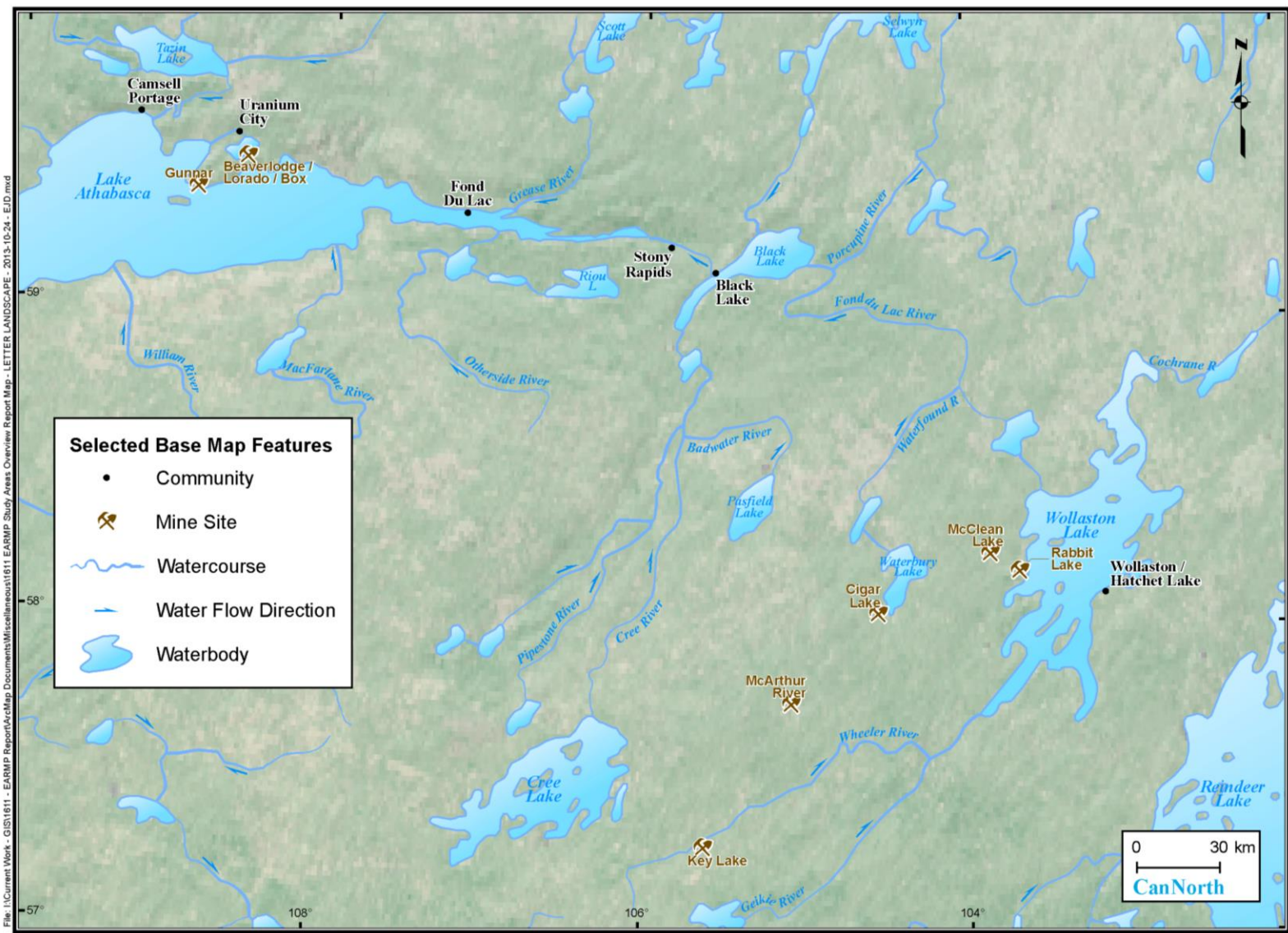


Figure 2
Study area overview.

be defined as “traditional native foods that are obtained from the land, such as wild game, birds, fish, and berries by local residents during subsistence hunting and gathering” (Peace Athabasca Delta Group Project 1972). Country food studies in Hatchet Lake and Uranium City have established that fish, berries, and wild game are important food sources for communities located in northern Saskatchewan (CanNorth 1999, 2011). In this way, the EARMP community program provides important information to the residents of northern Saskatchewan.

The EARMP community monitoring program objectives are to:

1. determine the safety of traditionally harvested food for local consumption;
2. establish long-term monitoring at community sampling areas to assess variability and potential changes over time;
3. build mutually beneficial relationships as well as engage and involve community members in the gathering of information for the program; and
4. communicate monitoring results to community members and other stakeholders through reporting, public media, and meetings.

1.3 Summary of EARMP Community Program Framework

1.3.1 Community Involvement

The community monitoring program relies on the participation of community members for the selection of sampling locations and sample collection. Prior to commencing the fieldwork in the summer of 2011, notices describing a new environmental monitoring program were distributed to the band chief/mayor and council for circulation and discussion within each community. The purpose of the notices was to invite community members to select representatives from each community to carry out the country foods sampling for the EARMP. Community members were selected from each community and provided training in the collection and shipping procedures for the EARMP community sampling program.

The collection of country food samples is carried out in one of two ways: either independently by the community member or in conjunction with a representative of CanNorth, who is responsible for the management of the program. The sampling locations within each community were established during the field training session when

physical variables such as water depth, fishing locations, and berry patches could be determined.

1.3.2 Communications Program in 2016/2017

Communicating the yearly monitoring results is one of the goals of the EARMP community program. The results of the program are shared with the communities in the region and the public through a number of different methods and are summarized below.

EARMP Promotions

The EARMP website continues to be the primary promotional strategy used to inform community members on upcoming events and reports that are available. The website is routinely updated with any new event pictures, information on community visits, sampling programs, and maps. The website (www.earmp.ca) also contains a wealth of information about the project objectives, contact information, downloads and data files, as well as links to other websites such as the stakeholders. Promotional materials including hats, toques, fish hooks, coffee mugs, and water bottles are often shipped to communities for fish derbies and community events.

Additional promotional materials include free EARMP calendars in English, Cree, and Dene that are shipped to the Athabasca communities and other northern communities once a year and circulated through the band offices, community health centers, post offices, and schools. Ads are also posted in Opportunity North magazine throughout the year, which is distributed throughout the north and includes information about the program as well as contact information for those who have any questions or concerns. In early 2017, EARMP participated in an interview on MBC radio to discuss the 2016 results. MBC radio reaches over 70 communities across northern Saskatchewan.

Northern Saskatchewan Environmental Quality Committee (NSEQC)

As an advisory committee of the provincial government, the NSEQC gives northerners a voice on environmental, socio-economic, and Occupational Health and Safety (OH&S) issues in regards to the northern Saskatchewan uranium industry (from exploration to decommissioning). Although not a regulatory body, the NSEQC is a well informed and well respected group which assists in the free flow of information and understanding

among communities, industry, and government. The committee is composed of trusted and knowledgeable people each nominated by his/her community, is a bridge between northerners, government, and the uranium mining industry. The main responsibility of NSEQC representatives is to bring community issues, concerns, and recommendations on the uranium industry to this forum and in turn to bring information, decisions, and directions back to their communities.

The EARMP community program results are generally presented to the NSEQC members yearly (2012 to 2015) and provide an opportunity to facilitate the communication of the results of the program and to answer any questions, concerns, or suggestions of community members in relation to the monitoring program. In 2016 EARMP did not present to the NSEQC as it was awaiting approval by the Government of Saskatchewan as the five-year term concluded with a review of the program.

Moving forward EARMP is committed to engaging with the NSEQC membership and will be attending the EQC meeting in November of 2017 in order to update community representatives on the results of the program.

Science Ambassador Program

The Science Ambassador Program pairs senior university science, engineering, and health science students with rural and remote Aboriginal community schools, to support creative and culturally-relevant science teaching and learning. Science Ambassadors work alongside teachers to present hands-on science activities, facilitate class discussions, and mentor students exploring possibilities for careers and continuing science education.

In the past three years (2014-2016), the EARMP has sponsored the communities with schools in the Athabasca region. With the permission of the local school principal/teacher and working with the U of S Science Ambassador Program, a science lesson was developed around the environmental monitoring that currently takes place across northern Saskatchewan. In 2016, EARMP continued to work with the program by working with elders in three communities providing lake trout for classroom fish dissections. In the fall of 2016 EARMP sponsored the purchase of digital field microscopes for three Athabasca Basin communities involved in the Science Ambassador Program (for more details on the program visit www.artsandscience.usask.ca/scienceoutreach/).

1.3.3 Study Design and Objectives of the 2016/2017 Program

The specific objective of the 2016/2017 EARMP community monitoring program is to continue to monitor the chemical characteristics of traditionally harvested foods by testing samples gathered by community members in the fall of 2016 and winter of 2017 and comparing the results to the baseline established during the previous sampling years to assess potential changes over time.

In 2016/2017, updates are available for fish, berries, and ungulate chemistry from the communities. As discussed above, sample selection and collection was completed directly by, or with the assistance of, community residents. Although a full suite of chemical parameters were measured for each sample, this report focused on a smaller list of chemicals, which have been identified as the chemicals of most interest for uranium operations by regulatory agencies, environmental assessments, as well as other monitoring programs (see Table 1 below).

Table 1

Chemicals assessed for the EARMP community program.

| Chemicals | |
|-----------|--------------|
| Aluminum | Molybdenum |
| Ammonia* | Nickel |
| Arsenic | Polonium-210 |
| Cadmium | Radium-226 |
| Cobalt | Selenium |
| Copper | Thorium-230 |
| Iron | Uranium |
| Lead | Vanadium |
| Lead-210 | Zinc |
| Mercury** | |

*For water only.

**Mercury is not associated with uranium mining and milling operations (refer to Appendix A for more information).

Chemistry results from the country foods tested in 2016/2017 were compared to available guidelines, to levels of chemicals measured in country foods collected throughout northern Saskatchewan during other monitoring programs (i.e., regional reference range), and to levels of chemicals measured as part of the baseline data collection years from 2011 and 2012. Comparing the results of the EARMP community program to available guidelines and regional reference data is valuable because although most foods contain detectable levels of environmental chemicals, they are not necessarily a concern to human

health. A full description of the EARMP community monitoring framework is provided in CanNorth 2015.

1.4 Report Structure

The EARMP community report is subdivided into six major sections including appendices:

- 1.0 Introduction
- 2.0 Fish Chemistry
- 3.0 Berry Chemistry
- 4.0 Mammal Chemistry
- 5.0 Summary

Appendix A presents the results of detailed data analyses completed on the 2016/2017 community data, while the raw data are provided in Appendix B.

2.0 FISH CHEMISTRY

Fish chemistry samples were collected by community members using overnight gill nets set at waterbodies near their communities or by angling (Figure 3). Fish collected from each community in 2016 included lake trout and lake whitefish. In 2016, three samples from each species in each of the six study areas were targeted. In previous year's northern pike from Uranium City and Camsell Portage were also collected.

All fish collected for chemistry near the communities were frozen and shipped to CanNorth offices in Saskatoon where they were identified to species, measured (fork length) to the nearest 1 mm, weighed to the nearest 20 g, and sexed. A visual external health assessment was completed for each fish and the stomach contents were described. Ageing structures (otoliths¹) were removed and submitted to North Shore Environmental to determine the age of the fish. The fish flesh was then submitted to SRC for chemical analysis. The detailed data analyses are presented in Appendix A and are summarized below. The raw fish chemistry data are provided in Appendix B.

The levels of chemicals in the community fish samples from 2016 were often so low that the laboratory could not measure them. This was the case for cadmium, molybdenum, uranium, vanadium, lead-210, radium-226, and thorium-230 in over half of the lake whitefish and lake trout samples assessed in each of the communities. Aluminum in lake whitefish and nickel and polonium-210 in lake trout were also below levels the laboratory could measure in over half of the samples from each community.

In 2016, mercury levels in lake trout were within the regional reference range in all sampling areas. During previous sampling years mercury levels have been slightly higher than the regional reference range, and in the case of Fond du Lac average levels were slightly higher than levels where some restrictions on eating are normally recommended. This was largely because of the age and size class of the lake trout sampled, as older and thus commonly larger fish accumulate more mercury over time. The average level of cobalt was slightly higher than the regional reference range in the 2016 lake trout samples from Fond du Lac. However, the levels are still considered low since they are so close to the lowest level the laboratory can measure.

¹Otoliths are calcified structures that fish use for balance and orientation. They can be used to age some species of fish.

No other concerns were noted in the 2016 fish chemistry data and lake trout and lake whitefish are considered safe to eat in each of the EARMP communities. A summary of the EARMP community program fish chemistry results is presented in Table 2.

Table 2

Summary results of the 2016 EARMP community fish chemistry program.

| Community | Within Regional Reference Range | Similar to Baseline Levels | Safe to Eat |
|---------------------------------|--|-----------------------------------|--------------------|
| Black Lake | ✓ | ✓ | Yes |
| Camsell Portage | ✓ | ✓ | Yes |
| Fond du Lac | ✓, 2 exceptions | ✓, 1 exception | Yes |
| Stony Rapids | ✓ | ✓ | Yes |
| Uranium City | ✓ | ✓ | Yes |
| Wollaston Lake/ Hatchet Lake | ✓ | ✓ | Yes |

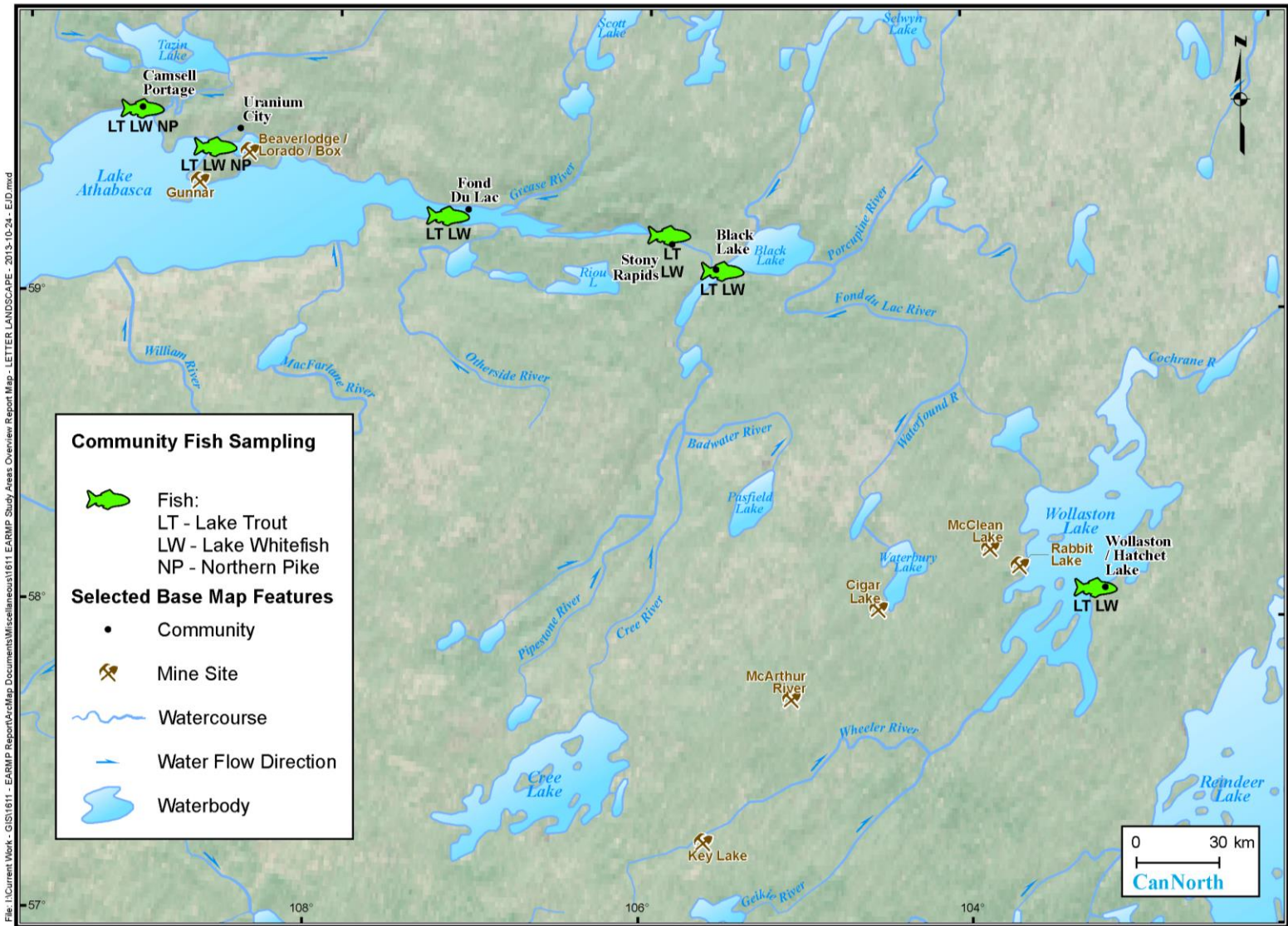


Figure 3
Fish chemistry sampling areas, 2011 to 2016.

3.0 BERRY CHEMISTRY

Near each study community, berry samples were hand-collected by local community members independently or with the aid of CanNorth personnel. Sampling was conducted at three locations typically used for berry collection by community members (Figure 4). Depending on accessibility and on current local abundance, the type of berry selected for collection was either blueberry or bog cranberry. In total, 12 blueberry and 6 bog cranberry samples were collected for the 2016 program. All samples were double-bagged and frozen until submission to SRC for chemical analysis.

A summary of the EARMP community program berry chemistry results is presented in Table 3. The detailed data analyses are presented in Appendix A and are summarized below. The raw chemistry data for berries are provided in Appendix B.

Table 3

Summary results of the 2016 EARMP community berry chemistry program.

| Community | Within the Regional Reference Range | Similar to Baseline Levels | Safe to Eat |
|---------------------------------|-------------------------------------|----------------------------|-------------|
| Black Lake | ✓ | ✓ | Yes |
| Camsell Portage | ✓ | ✓ | Yes |
| Fond du Lac | ✓, 2 exceptions | ✓, 2 exceptions | Yes |
| Stony Rapids | ✓ | ✓ | Yes |
| Uranium City | ✓, 1 exception | ✓, 1 exception | Yes |
| Wollaston Lake/ Hatchet Lake | ✓ | ✓ | Yes |

Levels of chemicals in the blueberries and cranberries were often too low for the laboratory to measure. This included levels of arsenic, cadmium selenium, uranium, vanadium, and thorium-230, which were below measurable levels in more than half of the samples from most communities.

For those chemicals that were at levels that the laboratory could measure, most were within the regional reference range and similar to baseline levels. Notably, levels of lead in blueberries from Stony Rapids decreased from 2015 to levels below the regional reference range in 2016. Molybdenum and nickel levels in blueberry samples from Fond du Lac and molybdenum in cranberry samples from Uranium City were higher than the regional reference range and baseline concentrations in 2016. However, the levels observed were within the range of values observed in berries from grocery stores across

Canada (HC 2011). Levels will continue to be monitored to ensure they are not increasing over time.

Overall, blueberries and bog cranberries are considered safe to eat in all of the EARMP communities.

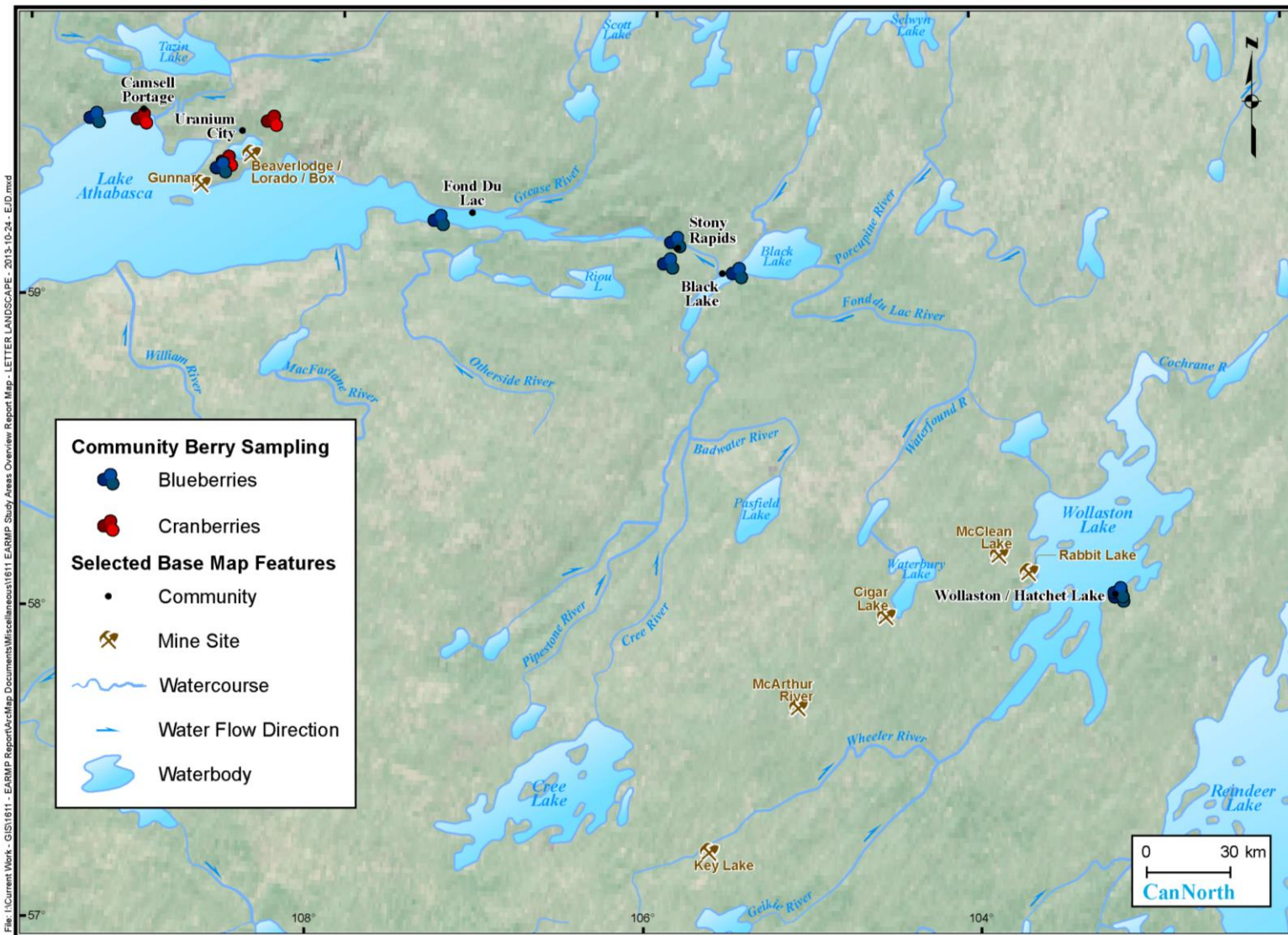


Figure 4
Berry chemistry sampling areas, 2011 to 2016.

4.0 MAMMAL CHEMISTRY

Mammal samples were collected by local community members during their routine hunting activities. Two main species commonly hunted and consumed in northern Saskatchewan were targeted; barren-ground caribou and moose. Moose samples were collected near the communities of Uranium City and Camsell Portage (Figure 5). Although barren-ground caribou samples were collected from most communities, it should be noted that several communities hunt in the same general area (Figure 5) but hunting locations do vary from year to year and species availability.

Between January and March 2017, two barren-ground caribou flesh samples from each of Black Lake, Fond du Lac, and Wollaston Lake/Hatchet Lake were submitted. Two moose from Camsell Portage, and one moose from each of Fond du Lac, Stony Rapids, and Uranium City were also submitted in the fall of 2016. In addition, organ samples (heart, liver, and kidney) were retained from some of the moose and caribou as requested by the communities. This included:

- caribou heart from Fond du Lac and Black Lake;
- caribou liver from Fond du Lac and Wollaston Lake;
- caribou kidney from Black Lake;
- moose liver and kidney from Uranium City; and
- moose kidney from Stony Rapids.

Once samples were received from the communities they were submitted by CanNorth to SRC for chemical analysis.

A summary of the EARMP community program mammal chemistry results is presented in Table 4. The detailed data analyses are presented in Appendix A and are summarized below. The raw mammal chemistry data are provided in Appendix B. The focus of the discussion below will be on flesh samples. The organ data will be used alongside the flesh data in an update to the Human Health Risk Assessment during the next monitoring year in 2018.

The levels of certain chemicals were often too low for the laboratory to measure. In barren-ground caribou meat, levels of aluminum, molybdenum, nickel, uranium, vanadium, lead-210, radium-226, and thorium-230 were too low for the laboratory to

measure in more than half of the samples from each community. In moose meat, arsenic, molybdenum, uranium, vanadium, lead-210, radium-226, and thorium-230 were too low to measure in more than half the samples from each community.

Of the chemicals with levels that the laboratory could measure, all levels were within the regional reference range for both the caribou and moose meat in 2016/2017. This included moose meat samples from Uranium City, which had higher levels of cadmium in the last two monitoring phases.

Overall, moose and caribou meat are considered safe to eat in all of the EARMP communities.

Table 4

Summary results of the 2016/2017 EARMP community mammal flesh chemistry program.

| Community | Within the Regional Reference Range | Similar to Baseline Assessment | Safe to Eat |
|-----------------------------|--|---------------------------------------|--------------------|
| Black Lake | ✓ | ✓ | Yes |
| Camsell Portage | ✓ | ✓ | Yes |
| Fond du Lac | ✓ | ✓ | Yes |
| Stony Rapids | ✓ | ✓ | Yes |
| Uranium City | ✓ | ✓ | Yes |
| Wollaston Lake/Hatchet Lake | ✓ | ✓ | Yes |



Figure 5
Moose and caribou chemistry sampling areas, 2011 to 2017.

5.0 SUMMARY

The 2016 sampling program took place between September 2016 and March 2017 and included sampling country foods (lake trout/lake whitefish, blueberries/cranberries, and moose/caribou) from the six Athabasca communities. The levels of chemicals were generally found to be low in all of the samples. Cadmium levels in moose meat from Uranium City and mercury levels in lake trout from Fond du Lac, which have been identified as elevated during previous monitoring years, were found to be low and within the regional reference range in 2016. All country foods assessed in 2016 from each community are considered safe to eat.

6.0 LITERATURE CITED

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APPENDICES

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Appendix A Detailed Data Analysis

Appendix B Raw Data

APPENDIX A

DETAILED DATA ANALYSIS

APPENDIX A: DETAILED DATA ANALYSIS

1.0 FISH CHEMISTRY

To evaluate the EARMP community fish chemistry data, concentrations of the reduced chemical list were compared to:

1. available guidelines,
2. regional reference data; and
3. previous monitoring phases.

Lake trout and lake whitefish samples were collected from each community in 2016. Three samples of each species were collected from each community. A summary of fish descriptive statistics (length, weight, and age) is provided in Appendix A, Figure 1 for lake trout and Appendix A, Figure 2 for lake whitefish. Summaries of available chemical concentrations measured in regional reference data, baseline data, and the 2014 to 2016 EARMP community data are presented in Appendix A, Table 1. Data were graphed if >50% of the concentrations for a certain chemical were above the laboratory reported detection limit (RDL) in at least one community (Appendix A, Figure 3 and Appendix A, Figure 4). The raw fish chemistry results are presented in Appendix B, Table 1.

Chemical concentrations in the community fish samples from 2016 were often so low that the laboratory could not measure the level. This was the case for cadmium, molybdenum, uranium, vanadium, lead-210, radium-226, and thorium-230 in over half of the lake whitefish and lake trout samples assessed in each of the communities. In addition, aluminum in lake whitefish and nickel and polonium-210 in lake trout were below levels the laboratory could measure in over half of the samples from each community.

Average arsenic concentrations fall within the updated regional reference range in lake trout from all communities, but slightly higher than the regional reference range in lake whitefish from most of the communities during at least one of the monitoring years (Appendix A, Figure 4). It is noted that overall, the 2016 arsenic levels were lower or comparable to those measured during the baseline monitoring years from which a human health risk assessment indicated the fish were safe to eat. Average cobalt concentrations marginally exceeded the regional reference range in the 2016 lake trout samples from

Fond du Lac. However, concentrations are considered low as values remain near the laboratory reported detection limit.

Overall, the levels of chemicals assessed in lake trout and lake whitefish are considered low and not a concern.

2.0 BERRY CHEMISTRY

To evaluate the EARMP community berry chemistry data, concentrations of the reduced chemical list were compared to:

1. regional reference data;
2. previous monitoring phases; and
3. available literature including supermarket values

Summaries of available chemical concentrations measured in regional reference data, baseline data, and the 2016 EARMP community data are presented in Appendix A, Table 2 for blueberries and Appendix A, Table 3 for bog cranberry. Data were graphed if >50% of the concentrations for a certain chemical were above the RDL in at least one community (Appendix A, Figure 5 and Appendix A, Figure 6). Detailed data are presented in Appendix B, Table 2 and Appendix B, Table 3.

Levels of chemicals in the blueberries and cranberries were often too low for the laboratory to measure. This included levels of arsenic, cadmium selenium, uranium, vanadium, and thorium-230, which were below measurable levels in more than half of the samples from most communities. Notably, levels of lead in blueberries from Stony Rapids decreased from 2015 ($0.1 \pm 0.1 \mu\text{g/g}$) to levels below the regional reference range in 2016 ($0.03 \pm 0.03 \mu\text{g/g}$; Appendix A, Figure 5).

Chemicals that measured above the regional reference range in some of the communities included molybdenum and nickel. Molybdenum levels in blueberry samples from Fond du Lac (Appendix A, Figure 5) and cranberry samples from Uranium City (Appendix A, Figure 6) were higher than the regional reference range and baseline concentrations in 2016. However, the levels observed remain within the range of values available for supermarket berries including blueberries, strawberries, and raspberries ($0.051 \mu\text{g/g}$ to $3.06 \mu\text{g/g}$; HC 2011). Similarly, nickel levels in blueberry samples from Fond du Lac

(Appendix A, Figure 5) were higher than the regional reference range and baseline concentrations in 2016, but within the range of values available for supermarket berries (0.0374 µg/g to 0.677 µg/g; HC 2011). Levels of chemicals will continue to be monitored to ensure they are not increasing over time.

Overall, blueberries and bog cranberries are considered safe to eat in all of the EARMP communities.

3.0 MAMMAL CHEMISTRY

To evaluate the EARMP community barren-ground caribou and moose chemistry data, concentrations of the reduced chemical list were compared to:

1. regional reference data; and
2. previous monitoring phases.

Summaries of available caribou and moose chemical concentrations measured in regional reference data, baseline data, and the 2016/2017 EARMP community data are presented in Appendix A, Table 4 for caribou and Appendix A, Table for moose. It is noted that mammals are collected throughout the fall and winter season, thus the sampling year spans from late 2016 (moose) to early 2017 (caribou). Data were graphed if >50% of the concentrations for a certain chemical were above the RDL in at least one community (Appendix A, Figure 7 and Appendix A, Figure 8). The raw mammal chemistry results are presented in Appendix B, Tables 3 to 7.

Concentrations of chemicals that were too low for the laboratory to measure varied only slightly between the barren-ground caribou and moose flesh samples. In barren-ground caribou flesh, levels of aluminum, molybdenum, nickel, uranium, vanadium, lead-210, radium-226, and thorium-230 were below RDLs in more than half of the samples in Black Lake, Fond du Lac, and Wollaston Lake. In moose flesh, arsenic, molybdenum, uranium, vanadium, lead-210, radium-226, and thorium-230 were below RDLs in more than half of the samples from each community.

Concentrations of all chemicals assessed were within the regional reference range for both caribou and moose flesh samples assessed in 2016/2017. This includes moose flesh

samples from Uranium City, which had elevated levels of cadmium in the last two monitoring phases.

No additional snowshoe hare were submitted in 2016/2017 (Appendix A, Table); however, caribou and moose heart, kidney, and liver samples were submitted by community members for analysis. Generally speaking, heavy metals follow a predictable pattern in mammals with the highest metal concentrations in kidney, less in the liver, and lowest in muscle tissue, and levels increase with the age of the animal (Gamberg 2005). Therefore, as was expected, the liver and kidney samples collected on average have higher levels of chemicals than the flesh samples. As community members are known to eat snowshoe hare and ungulate heart, kidney, and liver, this information will be included the next Human Health Risk Assessment update for the program.

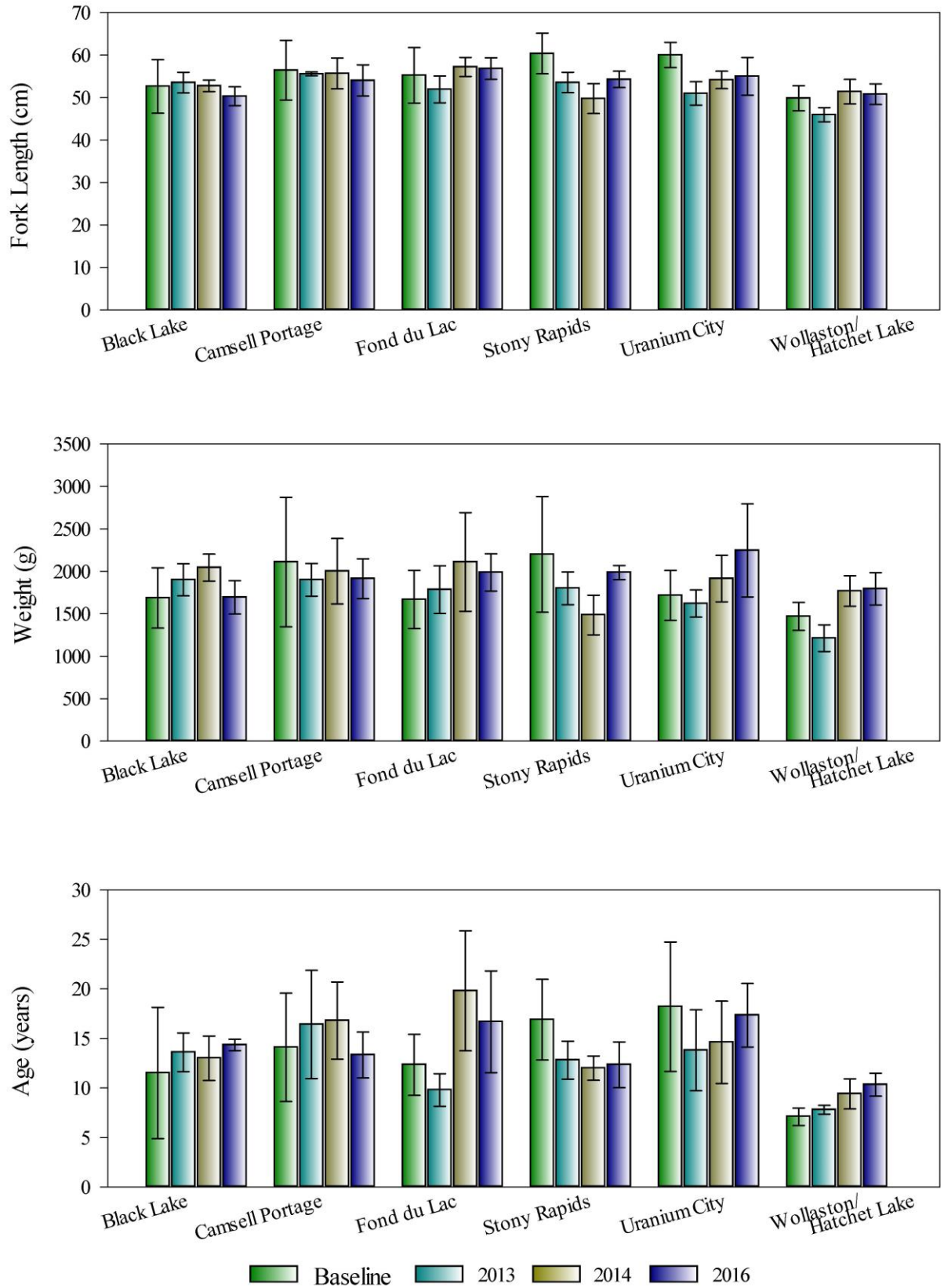
4.0 LITERATURE CITED

Gamberg, M. 2005. Contaminants in Yukon moose and caribou — 2004. Gamberg Consulting. Whitehorse, Yukon.

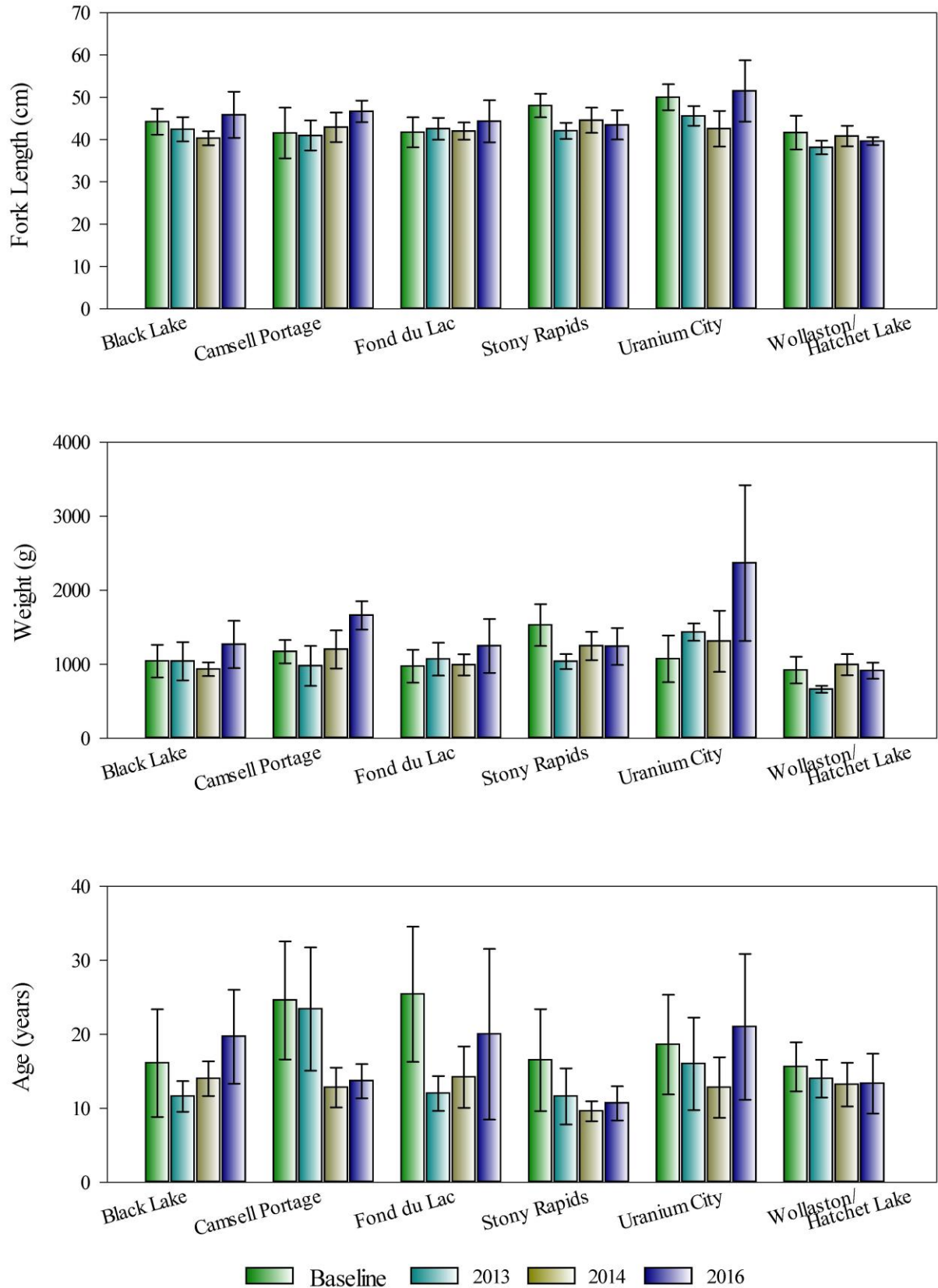
Health Canada. 2011. Total Diet Study – concentration of contaminants & other chemicals in food composites. Website: <http://www.hc-sc.gc.ca/fn-an/surveill/total-diet/concentration/index-eng.php>. Accessed July 2017.

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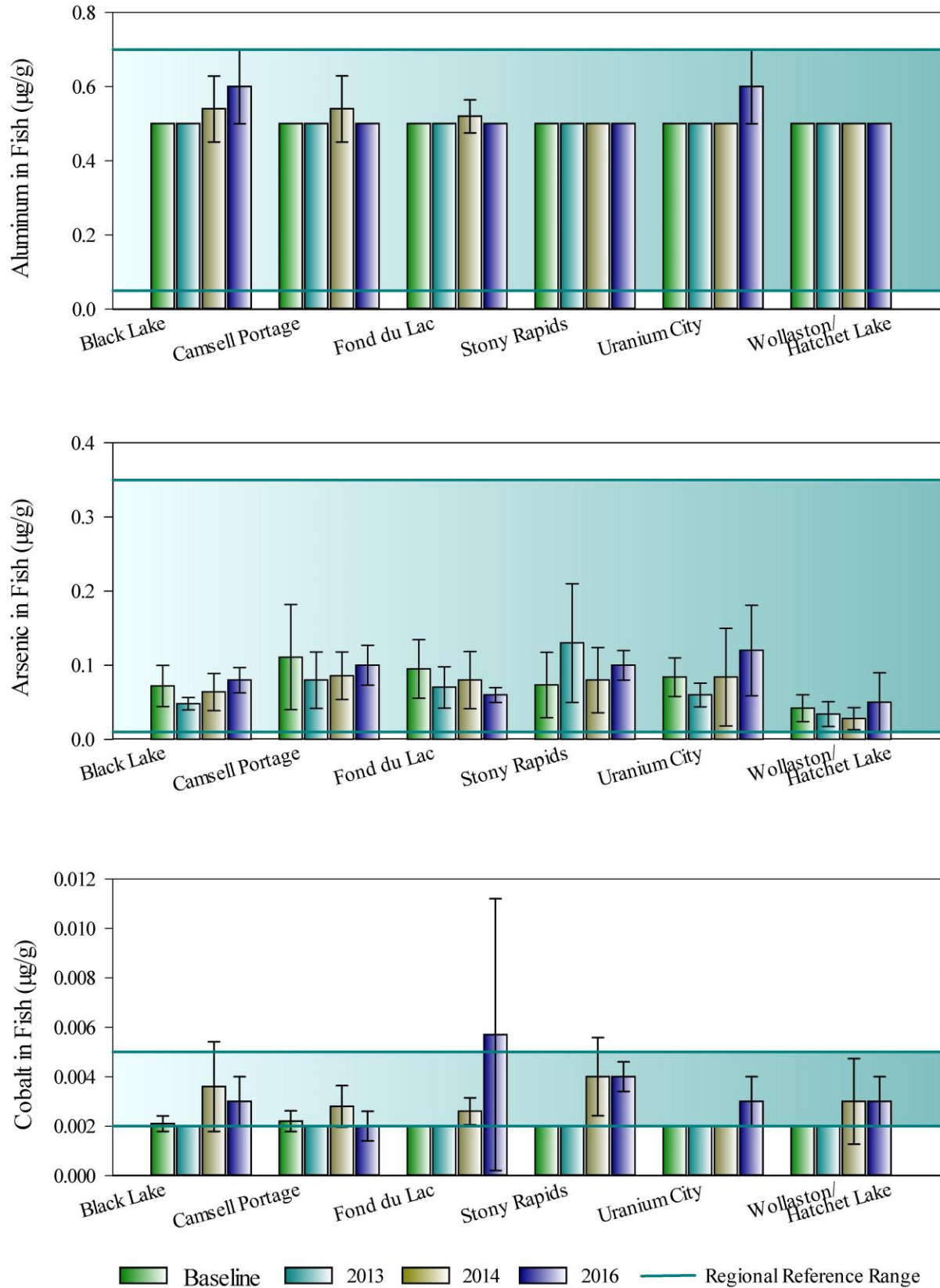
| | |
|----------------------|---|
| Appendix A, Figure 1 | Lake trout length, weight, and age, 2011 to 2016. |
| Appendix A, Figure 2 | Lake whitefish length, weight, and age, 2011 to 2016. |
| Appendix A, Figure 3 | Chemicals in lake trout from the EARMP community study area, 2011 to 2016. |
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| Appendix A, Figure 5 | Chemicals in blueberries from the EARMP community study area, 2011 to 2016 |
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| Appendix A, Figure 7 | Chemicals in barren-ground caribou from the EARMP community study area, 2011 to 2017. |
| Appendix A, Figure 8 | Chemicals in moose from the EARMP community study area, 2011 to 2016. |



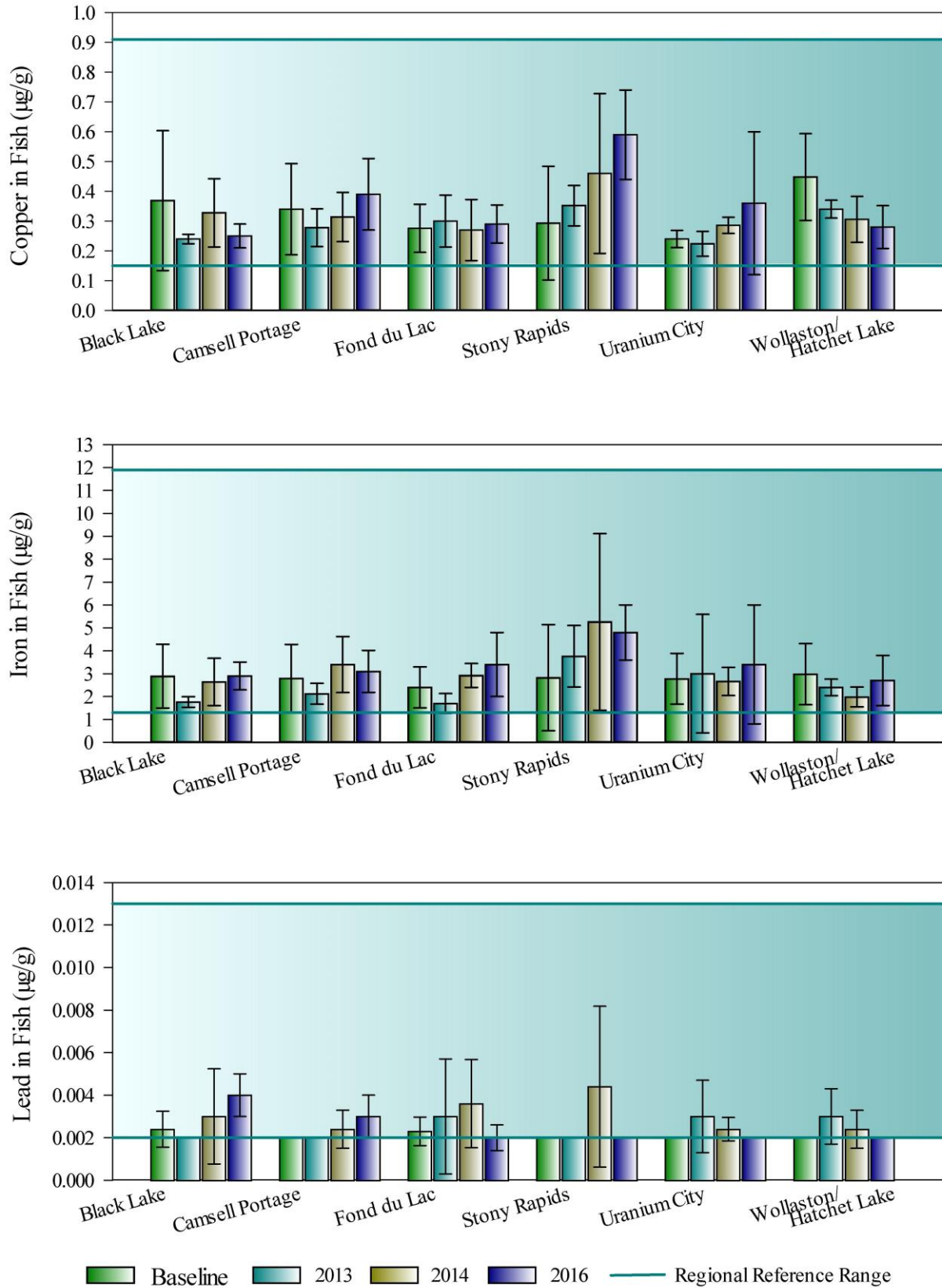
Appendix A, Figure 1
 Lake trout length, weight, and age, 2011 to 2016.



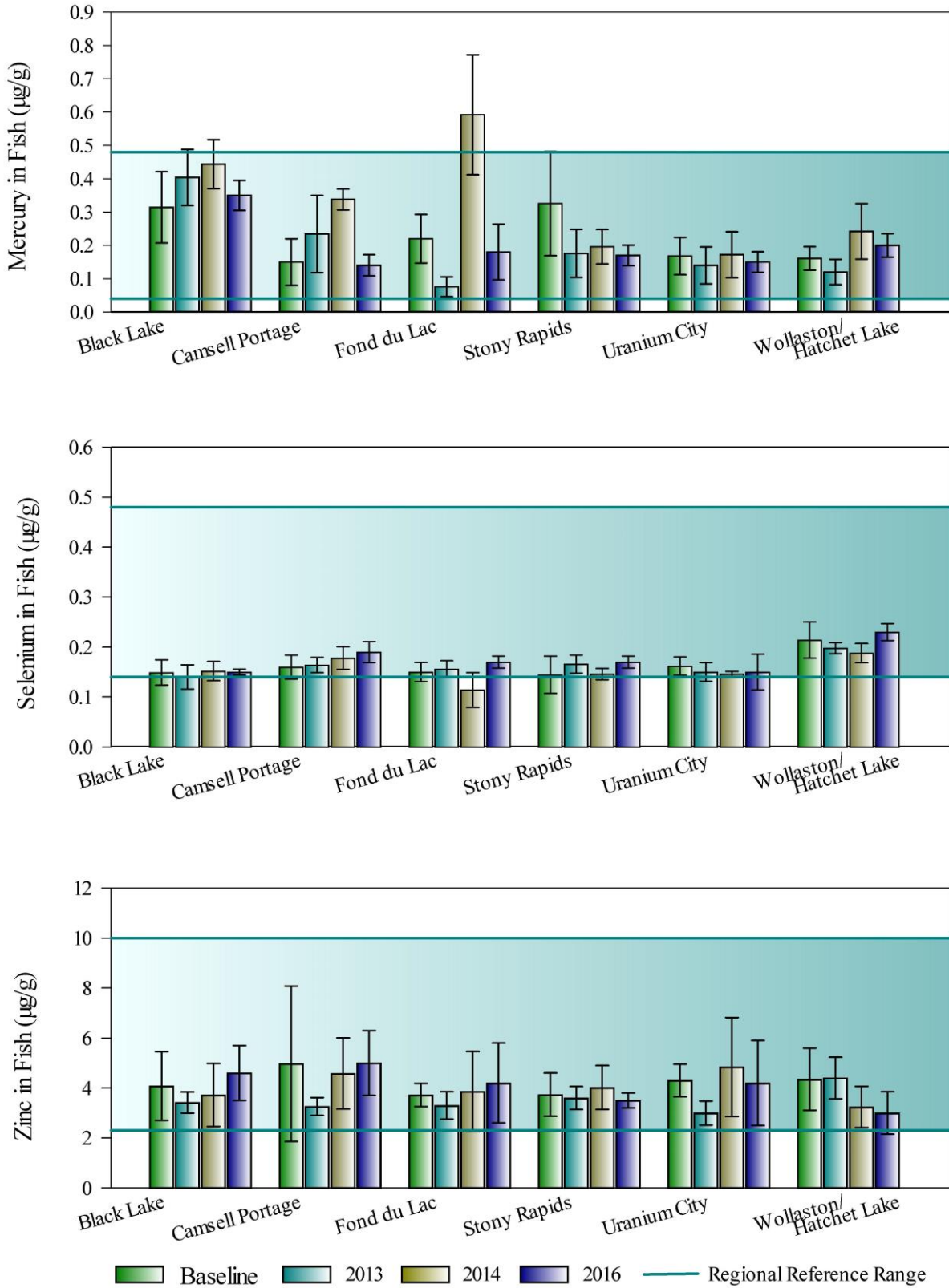
Appendix A, Figure 2
 Lake whitefish length, weight, and age, 2011 to 2016.



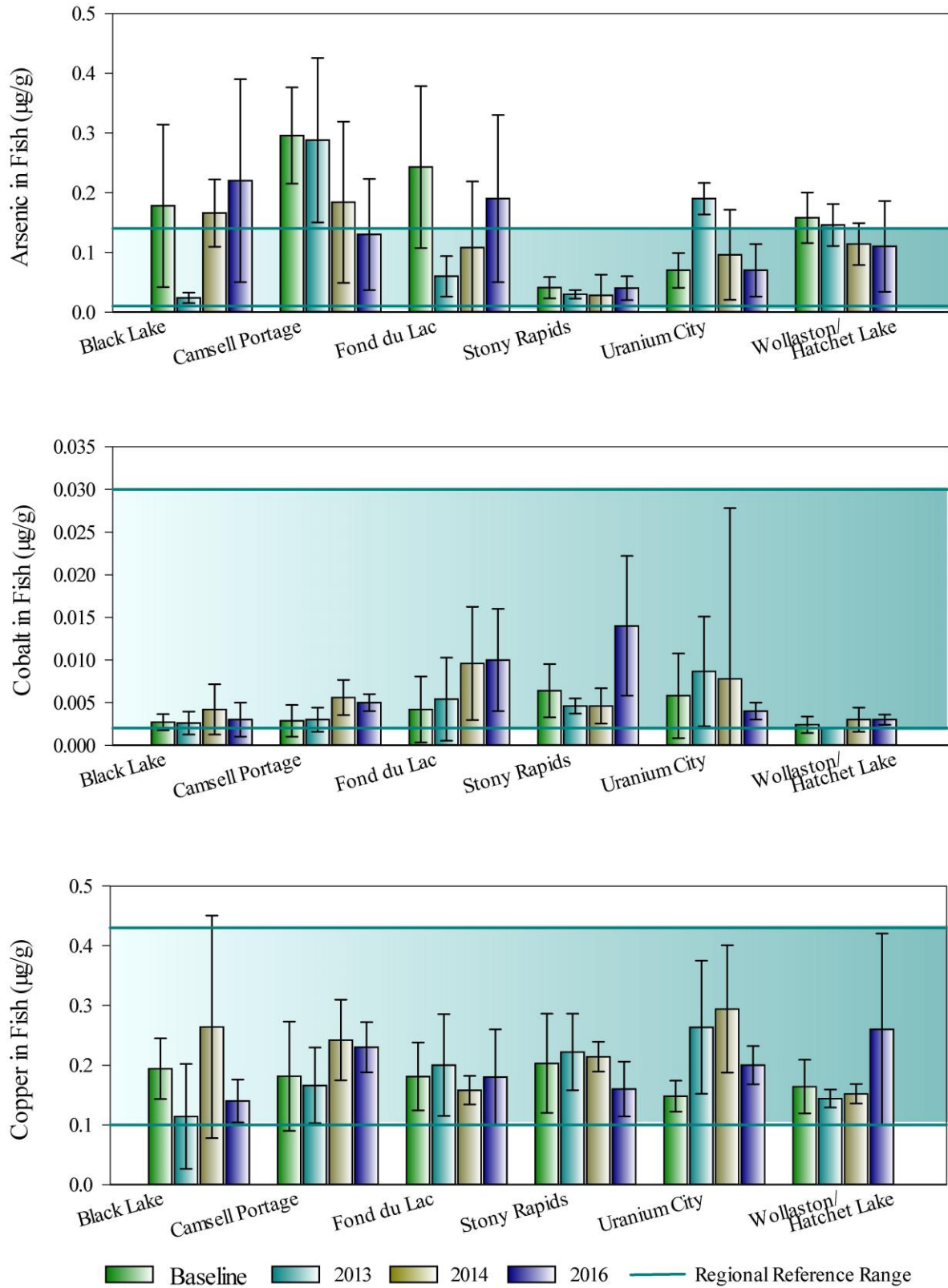
Appendix A, Figure 3
 Chemicals in lake trout from the EARMP community study area, 2011 to 2016.



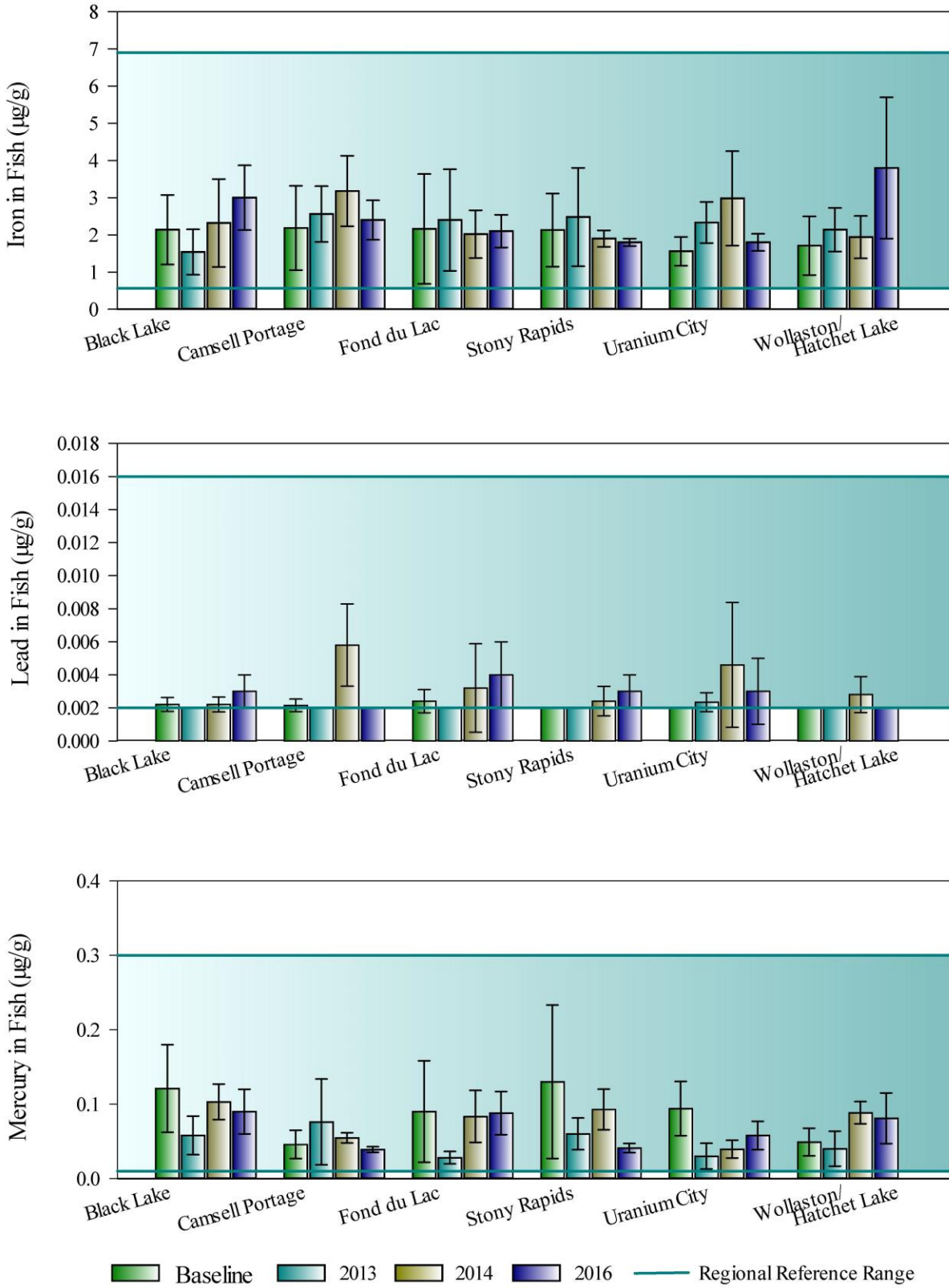
Appendix A, Figure 3
 Chemicals in lake trout from the EARMP community study area, 2011 to 2016.



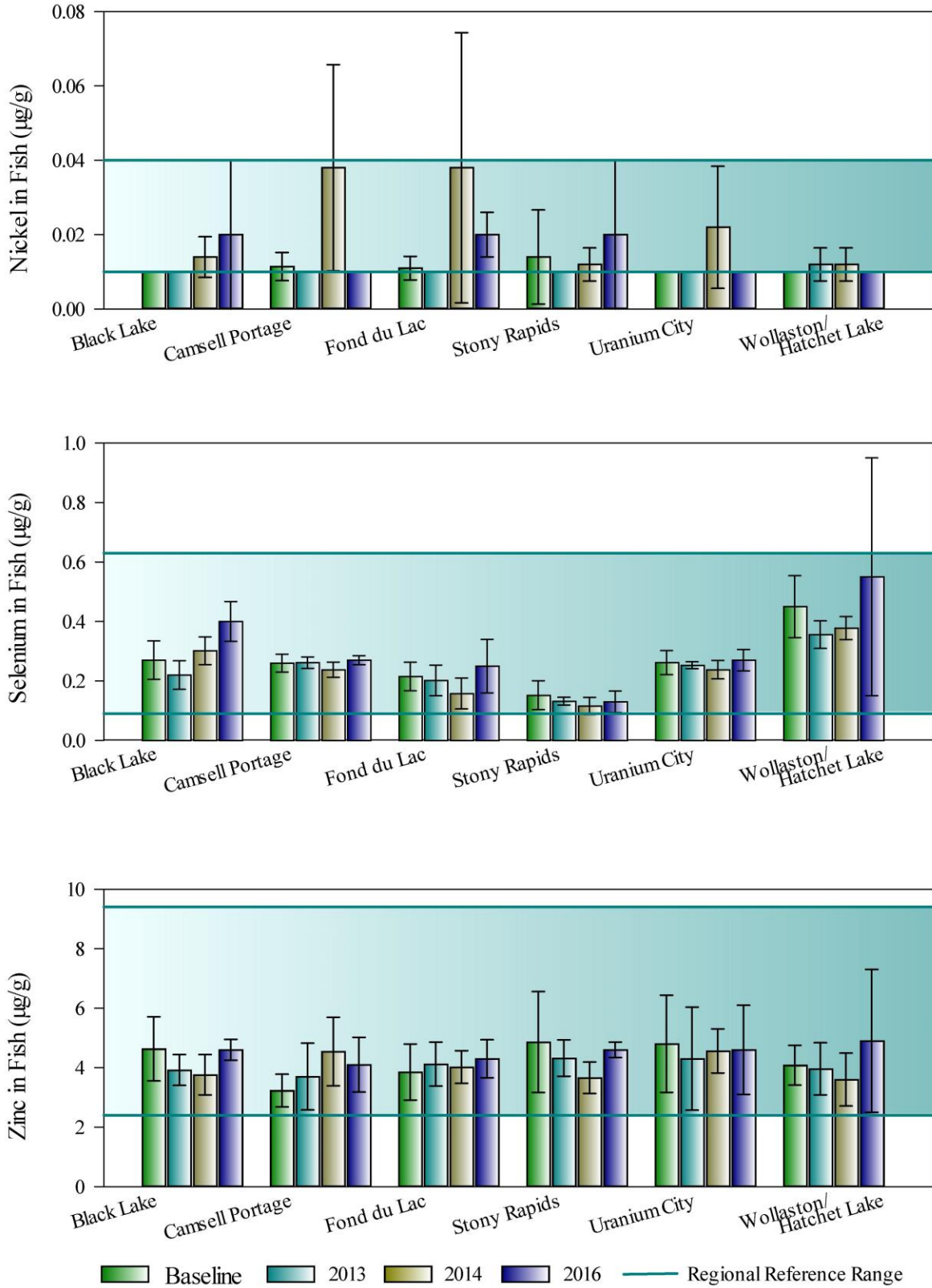
Appendix A, Figure 3
 Chemicals in lake trout from the EARMP community study area, 2011 to 2016.



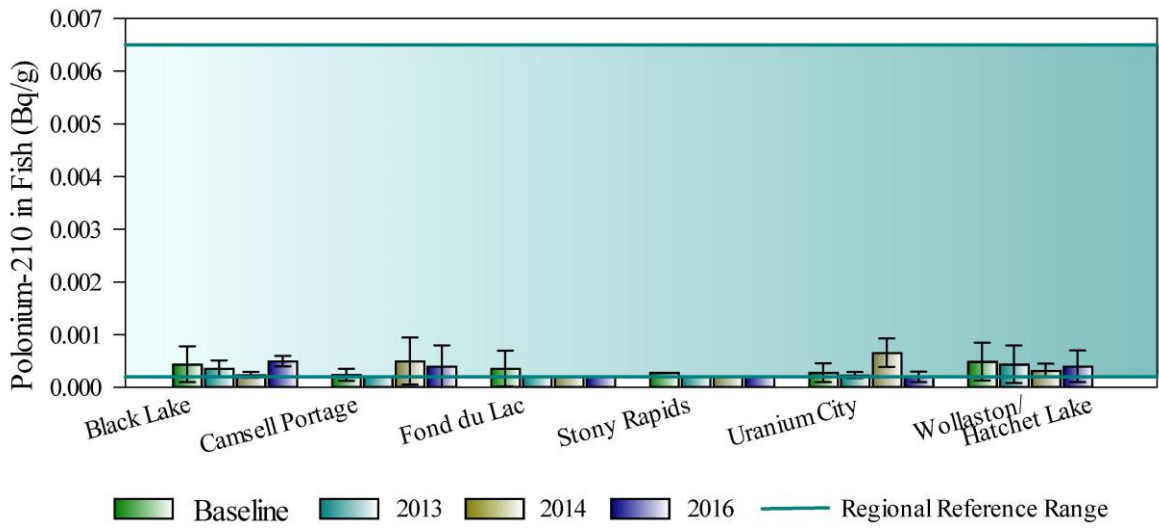
Appendix A, Figure 4
 Chemicals in lake whitefish from the EARMP community study area, 2011 to 2016.



Appendix A, Figure 4
 Chemicals in lake whitefish from the EARMP community study area, 2011 to 2016.

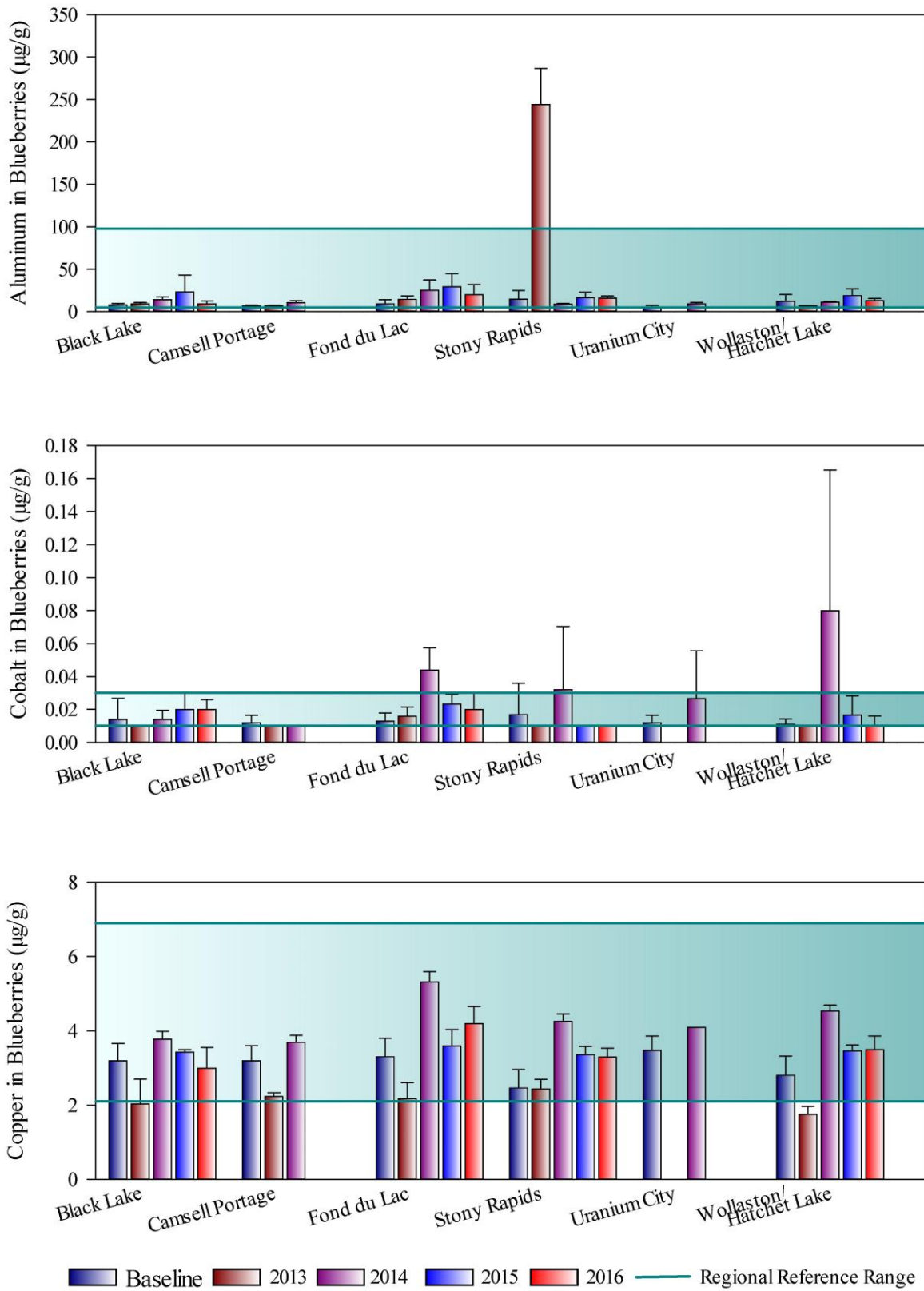


Appendix A, Figure 4
 Chemicals in lake whitefish from the EARMP community study area, 2011 to 2016.

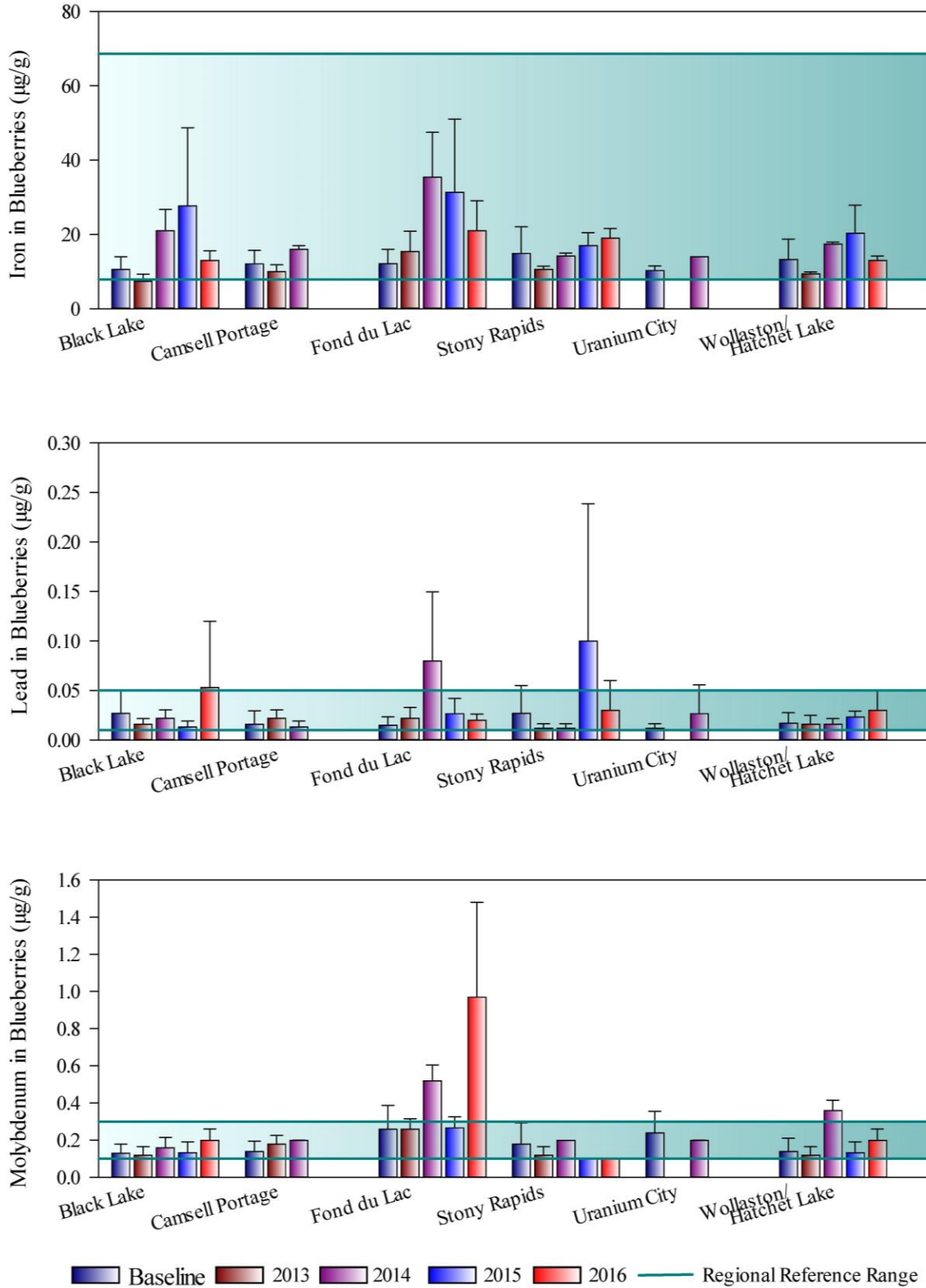


Appendix A, Figure 4

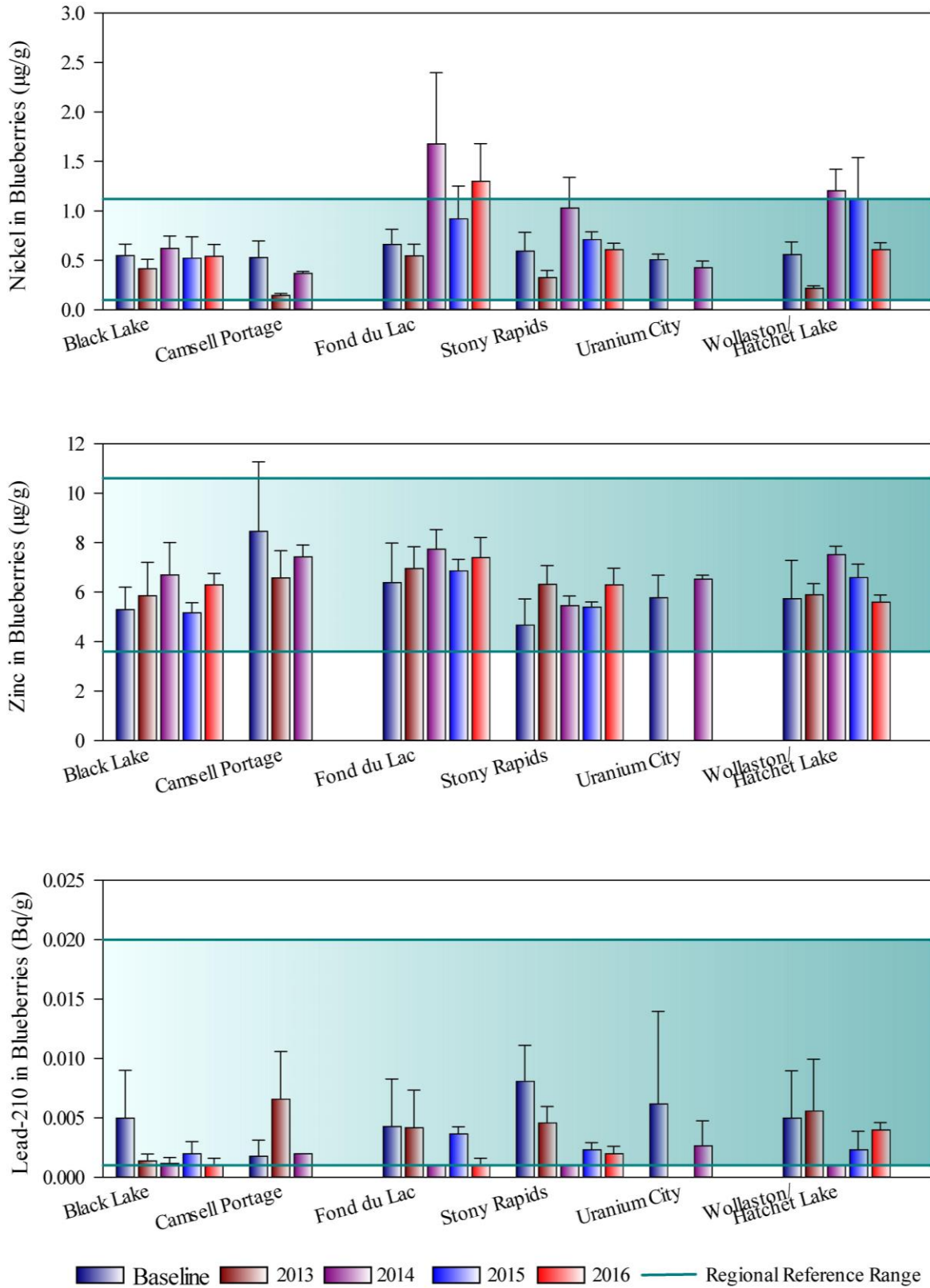
Chemicals in lake whitefish from the EARMP community study area, 2011 to 2016.



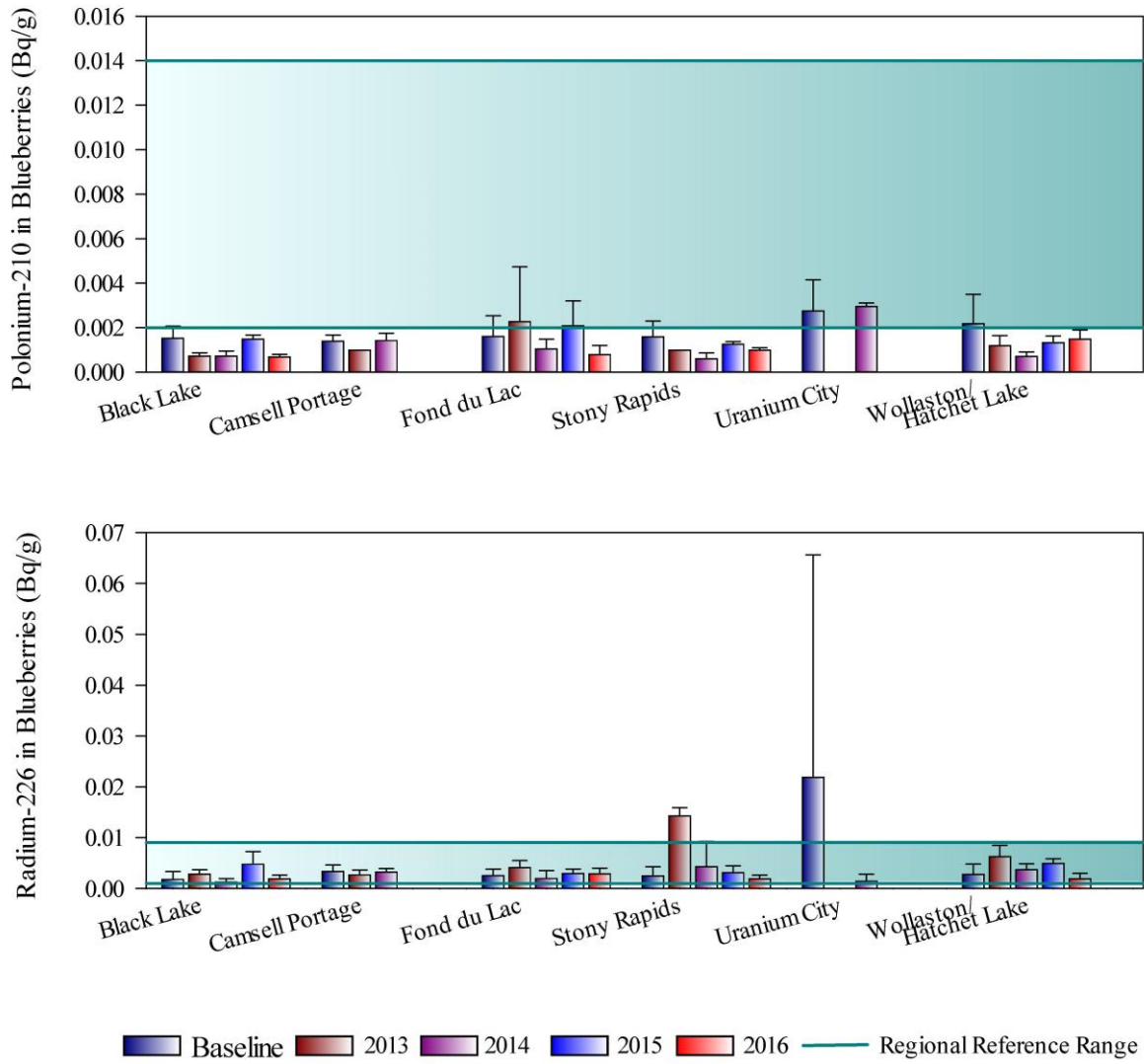
Appendix A, Figure 5
 Chemicals in blueberries from the EARMP community study area, 2011 to 2016.



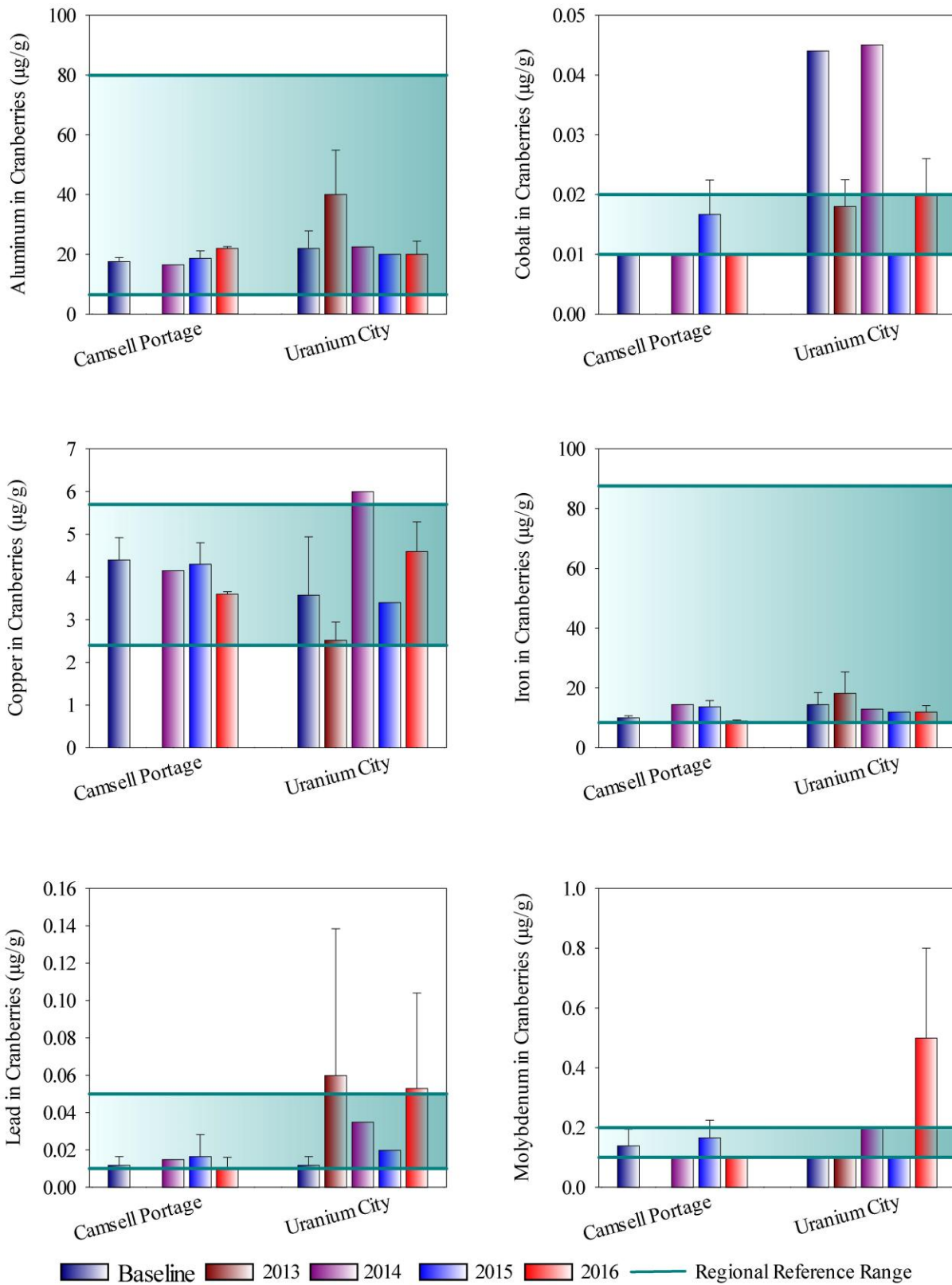
Appendix A, Figure 5
 Chemicals in blueberries from the EARMP community study area, 2011 to 2016.



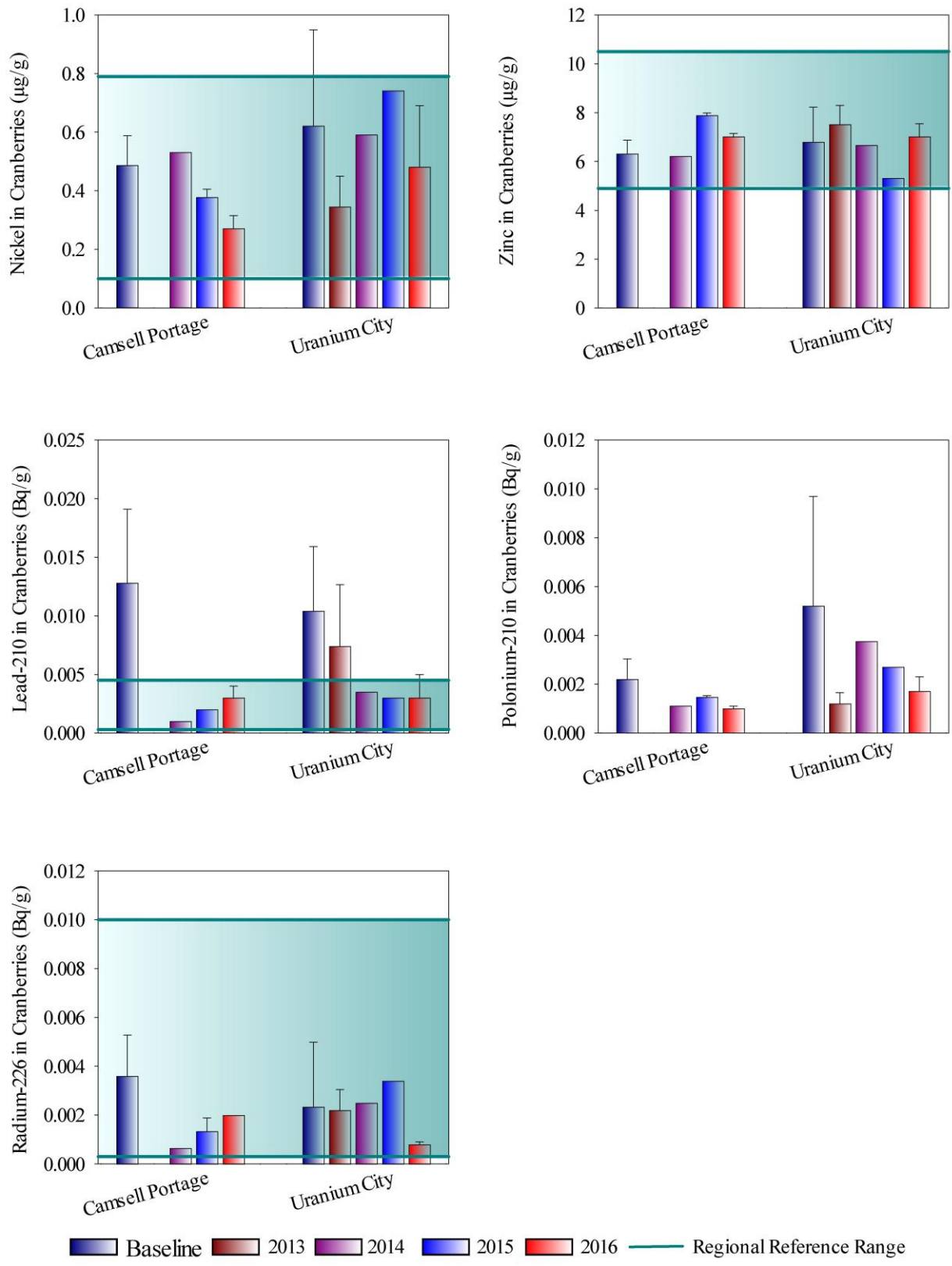
Appendix A, Figure 5
 Chemicals in blueberries from the EARMP community study area, 2011 to 2016.



Appendix A, Figure 5
 Chemicals in blueberries from the EARMP community study area, 2011 to 2016.



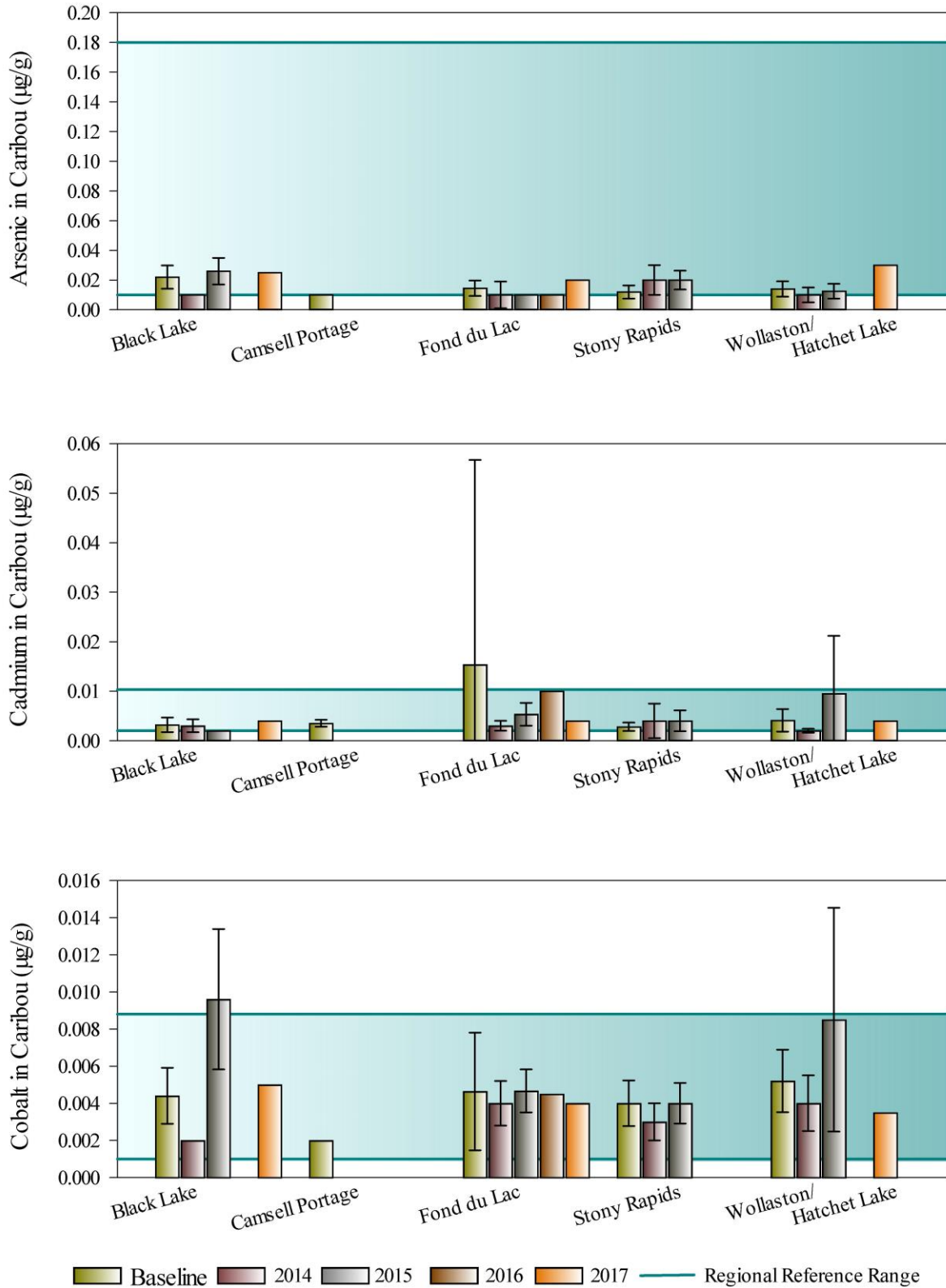
Appendix A, Figure 6
 Chemicals in cranberries from the EARMP community study area, 2011 to 2016.



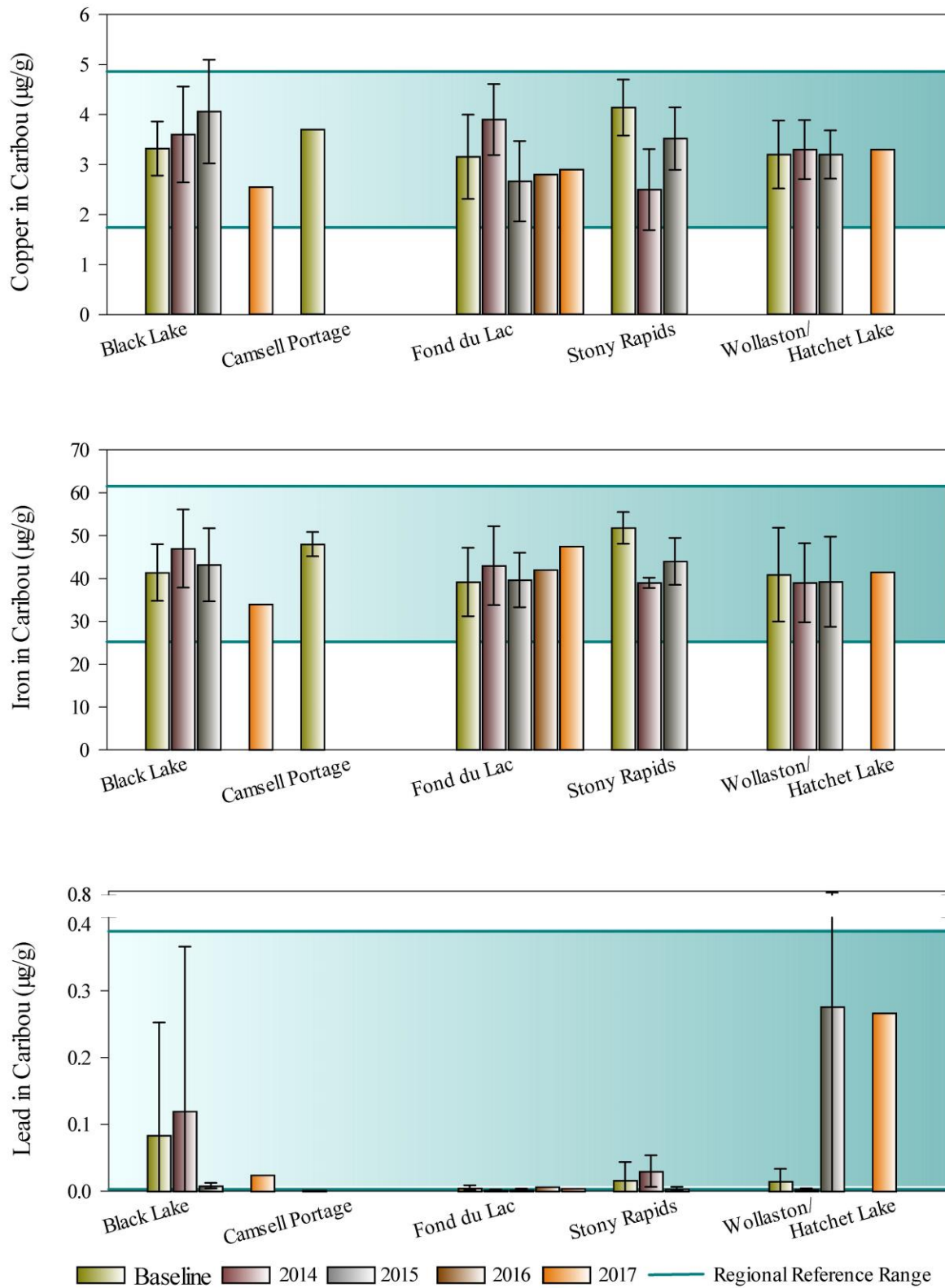
Appendix A, Figure 6

Chemicals in cranberries from the EARMP community study area, 2011 to 2016.

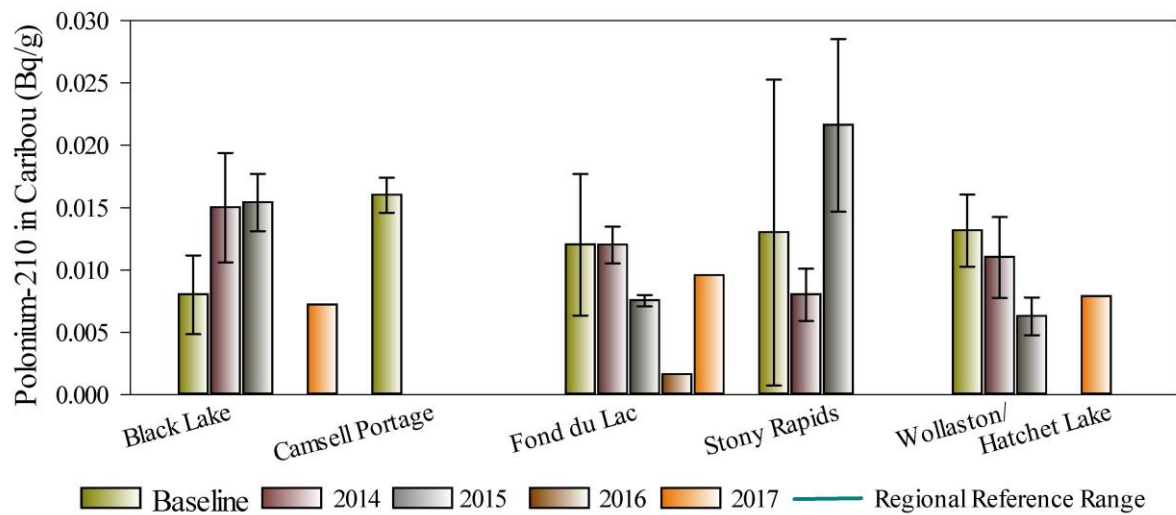
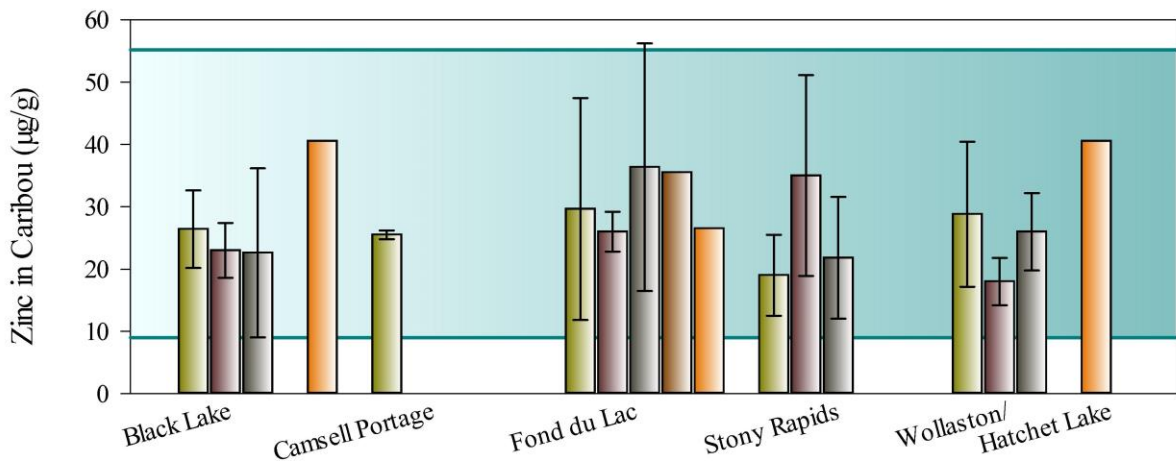
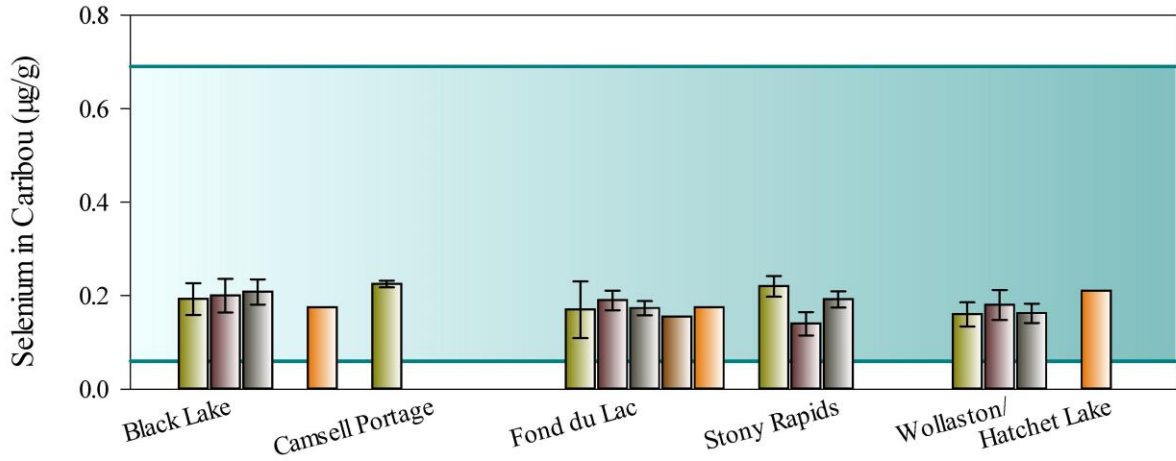
No regional reference range could be calculated for Polonium-210 in cranberry as there was insufficient data.



Appendix A, Figure 7
 Chemicals in barren-ground caribou from the EARMP community study area, 2011 to 2017.



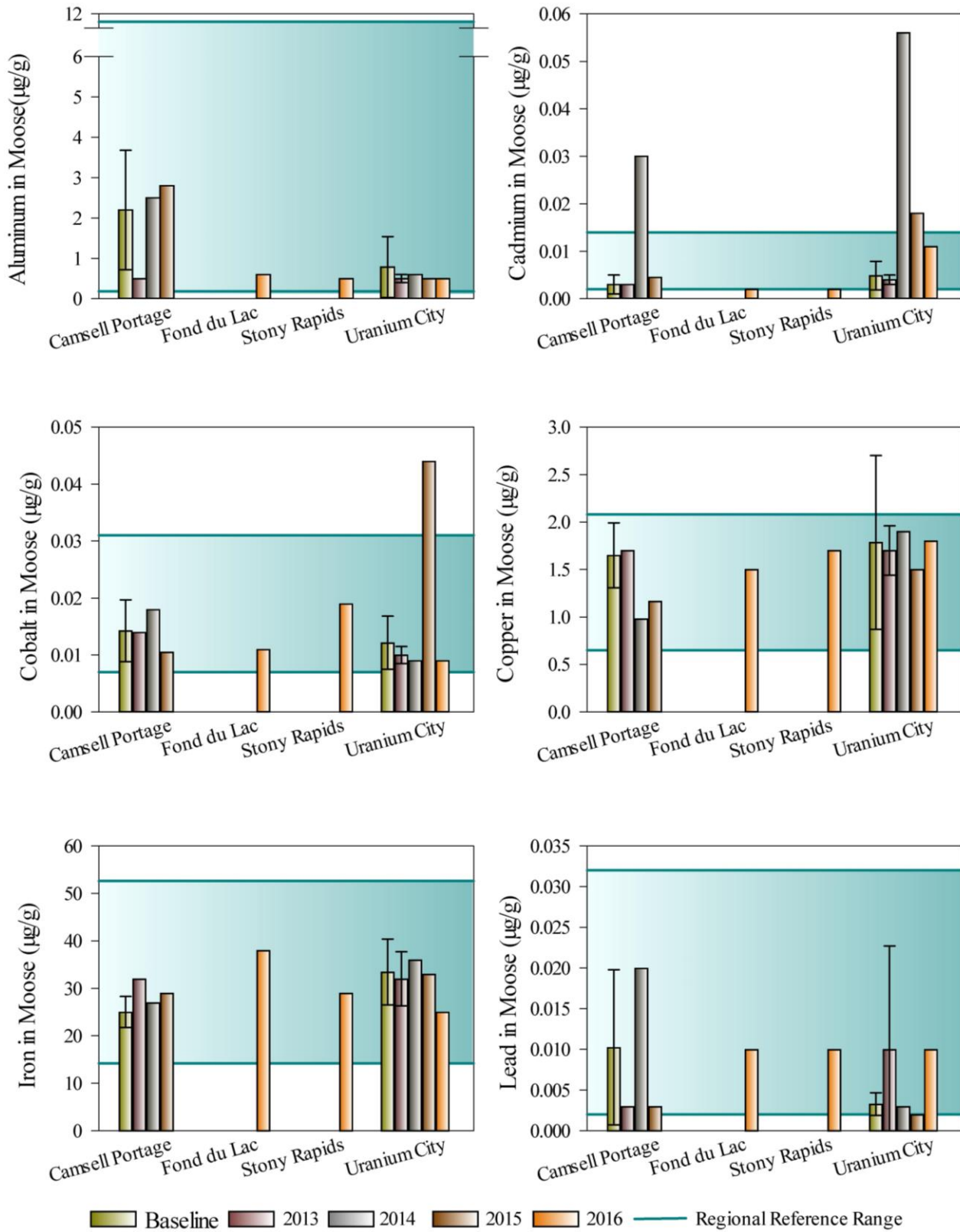
Appendix A, Figure 7
 Chemicals in barren-ground caribou from the EARMP community study area, 2011 to 2017.



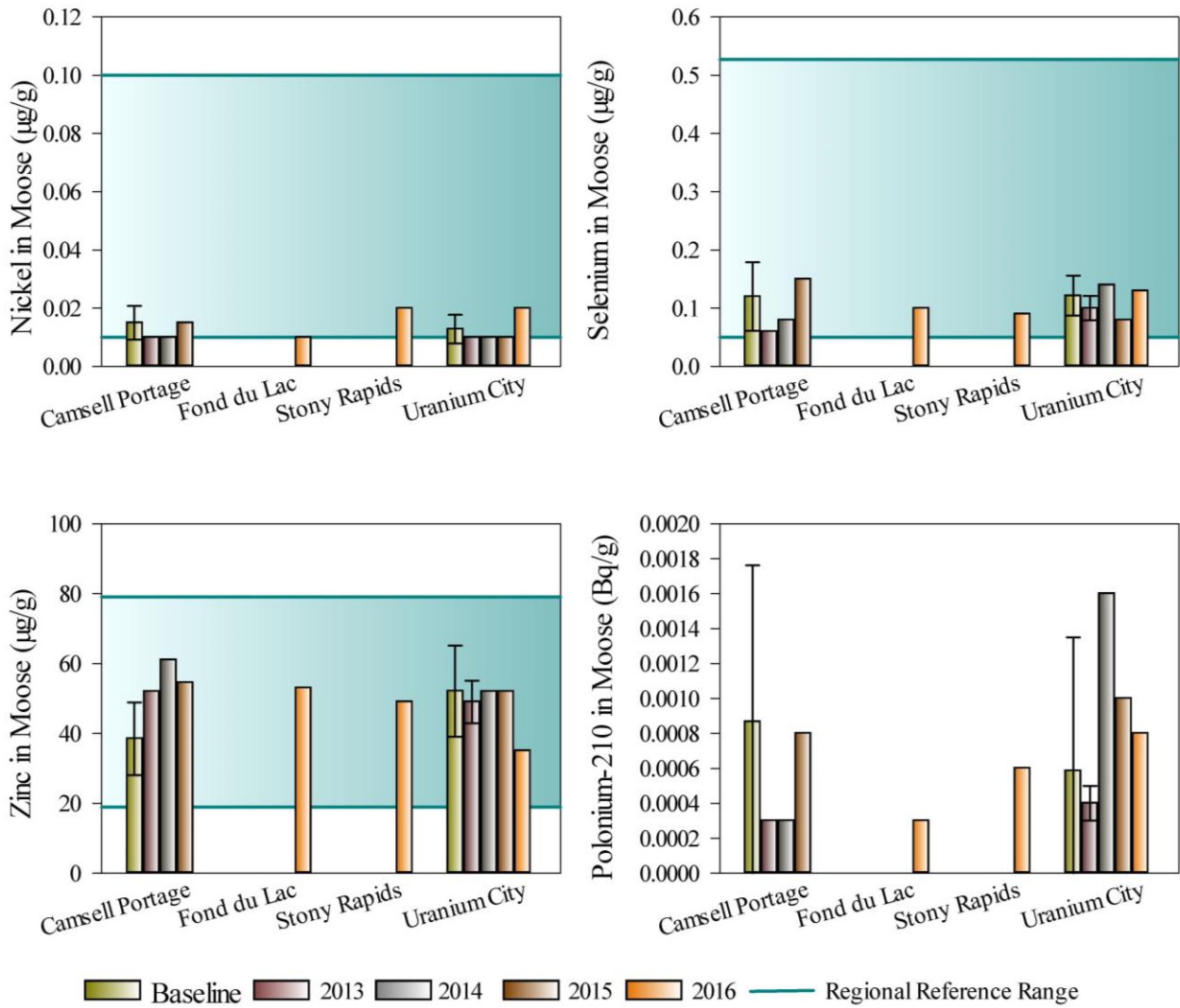
Appendix A, Figure 7

Chemicals in barren-ground caribou from the EARMP community study area, 2011 to 2017.

No regional reference range could be calculated for Polonium-210 in caribou as there was insufficient data.



Appendix A, Figure 8
 Chemicals in moose from the EARMP community study area, 2011 to 2016.



Appendix A, Figure 8

Chemicals in moose from the EARMP community study area, 2011 to 2016.

No regional reference range could be calculated for Polonium-210 in moose as there was insufficient data

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- Appendix A, Table 2 Summary blueberry chemistry results for the EARMP community program.
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- Appendix A, Table Summary barren-ground caribou and moose organ chemistry results for the EARMP community program.

Appendix A, Table 1

Summary fish flesh chemistry results for the EARMP community program.

| Chemical ¹ | Regional Reference Range ^{2, 3} | | | | | | | |
|----------------------------------|--|---------|-------------|----|----------------|---------|-------------|----|
| | Lake Trout | | | | Lake Whitefish | | | |
| | Lower Limit | Median | Upper Limit | n | Lower Limit | Median | Upper Limit | n |
| Metals and Trace Elements | | | | | | | | |
| Aluminum | 0.05 | 0.2 | 0.7 | 10 | <0.01 | 0.08 | 0.6 | 28 |
| Arsenic | 0.010 | 0.030 | 0.35 | 59 | <0.01 | 0.034 | 0.14 | 69 |
| Cadmium | - | - | - | 54 | - | - | - | 69 |
| Cobalt | <0.002 | <0.002 | 0.005 | 54 | 0.002 | 0.002 | 0.03 | 69 |
| Copper | 0.15 | 0.29 | 0.91 | 59 | 0.10 | 0.20 | 0.43 | 69 |
| Iron | 1.3 | 3.5 | 12 | 59 | 0.56 | 2.4 | 6.9 | 69 |
| Lead | <0.002 | <0.002 | 0.01 | 54 | <0.002 | <0.002 | 0.02 | 69 |
| Mercury | <0.04 | 0.2 | 0.5 | 44 | <0.01 | 0.05 | 0.3 | 59 |
| Molybdenum | - | - | - | 54 | - | - | - | 69 |
| Nickel | - | - | - | 54 | <0.01 | <0.01 | 0.04 | 69 |
| Selenium | 0.14 | 0.22 | 0.48 | 59 | 0.091 | 0.27 | 0.63 | 69 |
| Uranium | <0.001 | <0.001 | 0.005 | 54 | <0.001 | <0.001 | 0.005 | 69 |
| Vanadium | - | - | - | 54 | - | - | - | 69 |
| Zinc | 2.3 | 4.2 | 10 | 59 | 2.4 | 4.2 | 9.4 | 69 |
| Radionuclides | | | | | | | | |
| Lead-210 (Bq/g) | <0.001 | <0.001 | 0.03 | 54 | - | - | - | 69 |
| Polonium-210 (Bq/g) | - | - | - | 44 | <0.0002 | 0.0009 | 0.007 | 42 |
| Radium-226 (Bq/g) | 0.00005 | 0.00006 | 0.0002 | 44 | 0.00005 | 0.00006 | 0.0001 | 64 |
| Thorium-230 (Bq/g) | - | - | - | 45 | - | - | - | 47 |

Appendix A, Table 1

Summary fish flesh chemistry results for the EARMP community program.

| Chemical ¹ | Black Lake (Black Lake) | | | | | | | | | | |
|----------------------------------|-------------------------|---------|-----------------|---------|------|-----------------|-------|------|-----------------|--------|------|
| | Lake Trout | | | | | | | | | | |
| | Baseline (n = 10) | | 2013 (n = 5) | | | 2014 (n = 5) | | | 2016 (n = 3) | | |
| | Average | S.D. | Average | S.D. | <RDL | Average | S.D. | <RDL | Average | S.D. | <RDL |
| Metals and Trace Elements | | | | | | | | | | | |
| Aluminum | 0.5 | - | 0.5 | - | 5 | 0.5 | 0.09 | 4 | 0.6 | 0.1 | 1 |
| Arsenic | 0.072 | 0.028 | 0.048 | 0.0084 | 0 | 0.064 | 0.025 | 0 | 0.080 | 0.017 | 0 |
| Cadmium | 0.002 | - | 0.002 | - | 5 | 0.002 | - | 5 | 0.002 | - | 3 |
| Cobalt | 0.002 | 0.0003 | 0.002 | - | 5 | 0.004 | 0.002 | 1 | 0.003 | 0.001 | 1 |
| Copper | 0.37 | 0.23 | 0.24 | 0.016 | 0 | 0.33 | 0.11 | 0 | 0.25 | 0.040 | 0 |
| Iron | 2.9 | 1.4 | 1.8 | 0.23 | 0 | 2.6 | 1.0 | 0 | 2.9 | 0.61 | 0 |
| Lead | 0.002 | 0.0008 | 0.002 | - | 5 | 0.003 | 0.002 | 3 | 0.004 | 0.001 | 0 |
| Mercury | 0.31 | 0.11 | 0.40 | 0.084 | 0 | 0.44 | 0.073 | 0 | 0.35 | 0.045 | 0 |
| Molybdenum | 0.02 | - | 0.02 | - | 5 | 0.02 | - | 5 | 0.02 | - | 3 |
| Nickel | 0.01 | - | 0.01 | - | 5 | 0.02 | 0.01 | 2 | 0.01 | 0.006 | 1 |
| Selenium | 0.15 | 0.026 | 0.14 | 0.024 | 0 | 0.15 | 0.019 | 0 | 0.15 | 0.0058 | 0 |
| Uranium | 0.001 | 0.0003 | 0.001 | - | 5 | 0.001 | 0 | 2 | 0.001 | - | 3 |
| Vanadium | 0.02 | - | 0.02 | - | 5 | 0.02 | - | 5 | 0.02 | - | 3 |
| Zinc | 4.1 | 1.4 | 3.4 | 0.42 | 0 | 3.7 | 1.3 | 0 | 4.6 | 1.1 | 0 |
| Radionuclides | | | | | | | | | | | |
| Lead-210 (Bq/g) | 0.001 | 0.0004 | 0.001 | - | 5 | 0.001 | 0 | 4 | 0.001 | - | 3 |
| Polonium-210 (Bq/g) | 0.0002 | 0 | 0.0002 | - | 5 | 0.0002 | - | 5 | 0.0002 | - | 3 |
| Radium-226 (Bq/g) | 0.00006 | 0.00002 | 0.00007 | 0.00002 | 4 | 0.00005 | - | 5 | 0.00006 | - | 3 |
| Thorium-230 (Bq/g) | 0.00011 | 0.00003 | 0.0001 | 0.00004 | 5 | 0.00009 | - | 5 | 0.0001 | - | 3 |

Appendix A, Table 1

Summary fish flesh chemistry results for the EARMP community program.

| Chemical ¹ | Black Lake (Black Lake) | | | | | | | | | | |
|----------------------------------|-------------------------|--------|-----------------|---------|------|-----------------|---------|------|-----------------|--------|------|
| | Lake Whitefish | | | | | | | | | | |
| | Baseline (n = 10) | | 2013 (n = 5) | | | 2014 (n = 5) | | | 2016 (n = 3) | | |
| | Average | S.D. | Average | S.D. | <RDL | Average | S.D. | <RDL | Average | S.D. | <RDL |
| Metals and Trace Elements | | | | | | | | | | | |
| Aluminum | 0.5 | - | 0.5 | - | 5 | 0.5 | - | 5 | 0.5 | - | 3 |
| Arsenic | 0.18 | 0.14 | 0.024 | 0.0089 | 0 | 0.17 | 0.056 | 0 | 0.22 | 0.17 | 0 |
| Cadmium | 0.002 | - | 0.002 | - | 5 | 0.002 | - | 5 | 0.002 | - | 3 |
| Cobalt | 0.003 | 0.0009 | 0.003 | 0.001 | 2 | 0.004 | 0.003 | 2 | 0.003 | 0.002 | 0 |
| Copper | 0.19 | 0.051 | 0.11 | 0.088 | 0 | 0.26 | 0.19 | 0 | 0.14 | 0.036 | 0 |
| Iron | 2.1 | 0.93 | 1.5 | 0.61 | 0 | 2.3 | 1.2 | 0 | 3.0 | 0.87 | 0 |
| Lead | 0.002 | 0.0004 | 0.002 | - | 5 | 0.002 | 0.0004 | 4 | 0.003 | 0.001 | 0 |
| Mercury | 0.12 | 0.059 | 0.058 | 0.026 | 0 | 0.10 | 0.024 | 0 | 0.090 | 0.030 | 0 |
| Molybdenum | 0.02 | - | 0.02 | - | 5 | 0.02 | - | 5 | 0.02 | - | 3 |
| Nickel | 0.01 | 0 | 0.01 | - | 5 | 0.01 | 0.005 | 3 | 0.02 | 0.02 | 1 |
| Selenium | 0.27 | 0.065 | 0.22 | 0.048 | 0 | 0.30 | 0.047 | 0 | 0.40 | 0.067 | 0 |
| Uranium | 0.001 | 0.0003 | 0.001 | - | 5 | 0.001 | - | 5 | 0.001 | - | 3 |
| Vanadium | 0.02 | - | 0.02 | - | 5 | 0.02 | - | 5 | 0.02 | - | 3 |
| Zinc | 4.6 | 1.1 | 3.9 | 0.52 | 0 | 3.8 | 0.68 | 0 | 4.6 | 0.35 | 0 |
| Radionuclides | | | | | | | | | | | |
| Lead-210 (Bq/g) | 0.002 | 0.001 | 0.001 | 0 | 4 | 0.001 | - | 5 | 0.001 | - | 3 |
| Polonium-210 (Bq/g) | 0.0004 | 0.0003 | 0.0004 | 0.0002 | 0 | 0.0002 | 0.00005 | 2 | 0.0005 | 0.0001 | 0 |
| Radium-226 (Bq/g) | 0.0004 | 0.0007 | 0.0002 | 0.0001 | 3 | 0.00009 | 0.00006 | 4 | 0.00006 | - | 3 |
| Thorium-230 (Bq/g) | 0.0005 | 0.0008 | 0.0001 | 0.00004 | 4 | 0.0001 | - | 5 | 0.0001 | - | 3 |

Appendix A, Table 1

Summary fish flesh chemistry results for the EARMP community program.

| Chemical ¹ | Camsell Portage (Ellis Bay) | | | | | | | | | | |
|----------------------------------|-----------------------------|---------|-----------------|---------|------|-----------------|--------|------|-----------------|--------|------|
| | Lake Trout | | | | | | | | | | |
| | Baseline (n = 10) | | 2013 (n = 5) | | | 2014 (n = 5) | | | 2016 (n = 3) | | |
| | Average | S.D. | Average | S.D. | <RDL | Average | S.D. | <RDL | Average | S.D. | <RDL |
| Metals and Trace Elements | | | | | | | | | | | |
| Aluminum | 0.5 | - | 0.5 | - | 5 | 0.5 | 0.09 | 4 | 0.5 | - | 3 |
| Arsenic | 0.11 | 0.071 | 0.076 | 0.038 | 0 | 0.086 | 0.032 | 0 | 0.10 | 0.027 | 0 |
| Cadmium | 0.002 | - | 0.002 | - | 5 | 0.002 | - | 5 | 0.002 | - | 3 |
| Cobalt | 0.002 | 0.0004 | 0.002 | 0 | 4 | 0.003 | 0.0008 | 2 | 0.002 | 0.0006 | 1 |
| Copper | 0.34 | 0.15 | 0.28 | 0.063 | 0 | 0.31 | 0.083 | 0 | 0.39 | 0.12 | 0 |
| Iron | 2.8 | 1.5 | 2.1 | 0.45 | 0 | 3.4 | 1.2 | 0 | 3.1 | 0.92 | 0 |
| Lead | 0.002 | - | 0.002 | - | 5 | 0.002 | 0.0009 | 3 | 0.003 | 0.001 | 1 |
| Mercury | 0.15 | 0.070 | 0.23 | 0.12 | 0 | 0.34 | 0.031 | 0 | 0.14 | 0.032 | 0 |
| Molybdenum | 0.02 | - | 0.02 | - | 5 | 0.02 | - | 5 | 0.02 | - | 3 |
| Nickel | 0.01 | 0.006 | 0.02 | 0.02 | 4 | 0.02 | 0.02 | 2 | 0.01 | 0.006 | 2 |
| Selenium | 0.16 | 0.024 | 0.16 | 0.015 | 0 | 0.18 | 0.023 | 0 | 0.19 | 0.021 | 0 |
| Uranium | 0.002 | 0.004 | 0.001 | - | 5 | 0.001 | 0 | 4 | 0.001 | 0 | 2 |
| Vanadium | 0.02 | - | 0.02 | - | 5 | 0.02 | - | 5 | 0.02 | - | 3 |
| Zinc | 5.0 | 3.1 | 3.3 | 0.36 | 0 | 4.6 | 1.4 | 0 | 5.0 | 1.3 | 0 |
| Radionuclides | | | | | | | | | | | |
| Lead-210 (Bq/g) | 0.001 | - | 0.001 | - | 5 | 0.001 | - | 5 | 0.001 | - | 3 |
| Polonium-210 (Bq/g) | 0.0003 | 0.0002 | 0.0002 | - | 5 | 0.0002 | - | 5 | 0.0002 | - | 3 |
| Radium-226 (Bq/g) | 0.0001 | 0.00005 | 0.00007 | 0.00002 | 3 | 0.00005 | - | 5 | 0.00006 | - | 3 |
| Thorium-230 (Bq/g) | 0.0001 | - | 0.00010 | 0.00001 | 5 | 0.0001 | - | 5 | 0.0001 | - | 3 |

Appendix A, Table 1

Summary fish flesh chemistry results for the EARMP community program.

| Chemical ¹ | Camsell Portage (Ellis Bay) | | | | | | | | | | |
|----------------------------------|-----------------------------|---------|-----------------|---------|------|-----------------|--------|------|-----------------|--------|------|
| | Lake Whitefish | | | | | | | | | | |
| | Baseline (n = 7) | | 2013 (n = 5) | | | 2014 (n = 5) | | | 2016 (n = 3) | | |
| | Average | S.D. | Average | S.D. | <RDL | Average | S.D. | <RDL | Average | S.D. | <RDL |
| Metals and Trace Elements | | | | | | | | | | | |
| Aluminum | 0.5 | - | 0.5 | - | 5 | 0.7 | 0.3 | 2 | 0.5 | - | 3 |
| Arsenic | 0.30 | 0.081 | 0.29 | 0.14 | 0 | 0.18 | 0.14 | 0 | 0.13 | 0.093 | 0 |
| Cadmium | 0.002 | - | 0.002 | - | 5 | 0.002 | - | 5 | 0.002 | - | 3 |
| Cobalt | 0.003 | 0.002 | 0.003 | 0.001 | 2 | 0.006 | 0.002 | 0 | 0.005 | 0.001 | 0 |
| Copper | 0.18 | 0.092 | 0.17 | 0.063 | 0 | 0.24 | 0.068 | 0 | 0.23 | 0.042 | 0 |
| Iron | 2.2 | 1.1 | 2.6 | 0.75 | 0 | 3.2 | 0.95 | 0 | 2.4 | 0.53 | 0 |
| Lead | 0.002 | 0.0004 | 0.002 | - | 5 | 0.006 | 0.002 | 1 | 0.002 | - | 3 |
| Mercury | 0.050 | 0.019 | 0.08 | 0.058 | 0 | 0.055 | 0.0070 | 0 | 0.039 | 0.0038 | 0 |
| Molybdenum | 0.02 | - | 0.02 | - | 5 | 0.02 | - | 5 | 0.02 | - | 3 |
| Nickel | 0.01 | 0.004 | 0.01 | - | 5 | 0.04 | 0.03 | 1 | 0.01 | - | 3 |
| Selenium | 0.26 | 0.030 | 0.26 | 0.019 | 0 | 0.24 | 0.026 | 0 | 0.27 | 0.015 | 0 |
| Uranium | 0.001 | 0.0004 | 0.003 | 0.001 | 1 | 0.002 | 0.0005 | 2 | 0.001 | - | 3 |
| Vanadium | 0.02 | - | 0.02 | - | 5 | 0.02 | - | 5 | 0.02 | - | 3 |
| Zinc | 3.2 | 0.55 | 3.7 | 1.1 | 0 | 4.5 | 1.2 | 0 | 4.1 | 0.9 | 0 |
| Radionuclides | | | | | | | | | | | |
| Lead-210 (Bq/g) | 0.001 | 0.0004 | 0.001 | - | 5 | 0.001 | - | 5 | 0.001 | - | 3 |
| Polonium-210 (Bq/g) | 0.0002 | 0.0001 | 0.0002 | - | 5 | 0.0005 | 0.0004 | 1 | 0.0004 | 0.0004 | 1 |
| Radium-226 (Bq/g) | 0.0001 | 0.00010 | 0.00010 | 0.00006 | 3 | 0.00006 | - | 5 | 0.00006 | - | 3 |
| Thorium-230 (Bq/g) | 0.0001 | - | 0.0001 | - | 5 | 0.0001 | - | 5 | 0.0001 | - | 3 |

Appendix A, Table 1

Summary fish flesh chemistry results for the EARMP community program.

| Chemical ¹ | Fond du Lac (Fond du Lac River) | | | | | | | | | | |
|----------------------------------|---------------------------------|--------|-----------------|----------|------|-----------------|---------|------|-----------------|--------|------|
| | Lake Trout | | | | | | | | | | |
| | Baseline (n = 10) | | 2013 (n = 5) | | | 2014 (n = 5) | | | 2016 (n = 3) | | |
| | Average | S.D. | Average | S.D. | <RDL | Average | S.D. | <RDL | Average | S.D. | <RDL |
| Metals and Trace Elements | | | | | | | | | | | |
| Aluminum | 0.5 | - | 0.5 | - | 5 | 0.5 | 0.04 | 4 | 0.5 | - | 3 |
| Arsenic | 0.1 | 0.04 | 0.07 | 0.03 | 0 | 0.08 | 0.04 | 0 | 0.06 | 0.01 | 0 |
| Cadmium | 0.002 | - | 0.002 | - | 5 | 0.002 | - | 5 | 0.002 | - | 3 |
| Cobalt | 0.002 | - | 0.002 | - | 5 | 0.003 | 0.0005 | 1 | 0.0057 | 0.0055 | 1 |
| Copper | 0.28 | 0.081 | 0.30 | 0.087 | 0 | 0.27 | 0.10 | 0 | 0.29 | 0.064 | 0 |
| Iron | 2.4 | 0.90 | 1.7 | 0.43 | 0 | 2.9 | 0.53 | 0 | 3.4 | 1.4 | 0 |
| Lead | 0.002 | 0.0007 | 0.003 | 0.003 | 4 | 0.004 | 0.002 | 1 | 0.002 | 0.0006 | 0 |
| Mercury | 0.22 | 0.073 | 0.08 | 0.030 | 0 | 0.59 | 0.18 | 0 | 0.18 | 0.084 | 0 |
| Molybdenum | 0.02 | - | 0.02 | - | 5 | 0.02 | - | 5 | 0.02 | - | 3 |
| Nickel | 0.01 | - | 0.01 | 0.005 | 3 | 0.02 | 0.004 | 1 | 0.01 | 0.006 | 2 |
| Selenium | 0.15 | 0.019 | 0.16 | 0.017 | 0 | 0.11 | 0.035 | 0 | 0.17 | 0.012 | 0 |
| Uranium | 0.001 | 0.0003 | 0.001 | - | 5 | 0.001 | 0.0004 | 4 | 0.001 | - | 3 |
| Vanadium | 0.02 | - | 0.02 | - | 5 | 0.02 | - | 5 | 0.02 | - | 3 |
| Zinc | 3.7 | 0.47 | 3.3 | 0.55 | 0 | 3.9 | 1.6 | 0 | 4.2 | 1.6 | 0 |
| Radionuclides | | | | | | | | | | | |
| Lead-210 (Bq/g) | 0.001 | 0.0004 | 0.001 | - | 5 | 0.001 | - | 5 | 0.001 | - | 3 |
| Polonium-210 (Bq/g) | 0.0002 | - | 0.0002 | - | 5 | 0.0002 | - | 5 | 0.0002 | - | 3 |
| Radium-226 (Bq/g) | 0.00006 | - | 0.00006 | 0.000004 | 5 | 0.00006 | 0.00001 | 4 | 0.00006 | - | 3 |
| Thorium-230 (Bq/g) | 0.0001 | - | 0.0001 | - | 5 | 0.0001 | - | 5 | 0.0001 | - | 3 |

Appendix A, Table 1

Summary fish flesh chemistry results for the EARMP community program.

| Chemical ¹ | Fond du Lac (Fond du Lac River) | | | | | | | | | | |
|----------------------------------|---------------------------------|--------|-----------------|---------|------|-----------------|---------|------|-----------------|--------|------|
| | Lake Whitefish | | | | | | | | | | |
| | Baseline (n = 10) | | 2013 (n = 5) | | | 2014 (n = 5) | | | 2016 (n = 3) | | |
| | Average | S.D. | Average | S.D. | <RDL | Average | S.D. | <RDL | Average | S.D. | <RDL |
| Metals and Trace Elements | | | | | | | | | | | |
| Aluminum | 0.6 | 0.3 | 0.5 | - | 5 | 0.5 | 0.04 | 4 | 0.5 | 0.06 | 2 |
| Arsenic | 0.24 | 0.14 | 0.06 | 0.034 | 0 | 0.11 | 0.11 | 0 | 0.19 | 0.14 | 0 |
| Cadmium | 0.002 | 0.001 | 0.002 | 0 | 4 | 0.002 | - | 5 | 0.002 | - | 3 |
| Cobalt | 0.0040 | 0.0039 | 0.0054 | 0.0049 | 1 | 0.010 | 0.0067 | 0 | 0.010 | 0.0060 | 0 |
| Copper | 0.18 | 0.057 | 0.20 | 0.085 | 0 | 0.16 | 0.024 | 0 | 0.18 | 0.080 | 0 |
| Iron | 2.2 | 1.5 | 2.4 | 1.4 | 0 | 2.0 | 0.64 | 0 | 2.1 | 0.44 | 0 |
| Lead | 0.002 | 0.0007 | 0.002 | - | 5 | 0.003 | 0.003 | 3 | 0.004 | 0.002 | 1 |
| Mercury | 0.090 | 0.068 | 0.028 | 0.0084 | 0 | 0.083 | 0.035 | 0 | 0.088 | 0.029 | 0 |
| Molybdenum | 0.02 | - | 0.02 | - | 5 | 0.02 | - | 5 | 0.02 | - | 3 |
| Nickel | 0.01 | 0.003 | 0.01 | 0 | 4 | 0.04 | 0.04 | 1 | 0.02 | 0.006 | 1 |
| Selenium | 0.22 | 0.048 | 0.20 | 0.052 | 0 | 0.16 | 0.052 | 0 | 0.25 | 0.090 | 0 |
| Uranium | 0.001 | 0.0007 | 0.001 | - | 5 | 0.002 | 0.001 | 4 | 0.001 | 0.0006 | 2 |
| Vanadium | 0.02 | - | 0.02 | - | 5 | 0.02 | - | 5 | 0.02 | - | 3 |
| Zinc | 3.9 | 0.94 | 4.1 | 0.74 | 0 | 4.0 | 0.55 | 0 | 4.3 | 0.64 | 0 |
| Radionuclides | | | | | | | | | | | |
| Lead-210 (Bq/g) | 0.004 | - | 0.001 | - | 5 | 0.001 | - | 5 | 0.001 | - | 3 |
| Polonium-210 (Bq/g) | 0.0004 | 0.0003 | 0.0002 | - | 5 | 0.0002 | - | 5 | 0.0002 | - | 3 |
| Radium-226 (Bq/g) | 0.0004 | 0.0007 | 0.00007 | 0.00002 | 4 | 0.00007 | 0.00001 | 4 | 0.00006 | - | 3 |
| Thorium-230 (Bq/g) | 0.002 | - | 0.0001 | - | 5 | 0.0001 | 0.00004 | 4 | 0.0001 | - | 3 |

Appendix A, Table 1

Summary fish flesh chemistry results for the EARMP community program.

| Chemical ¹ | Stony Rapids (Fond du Lac River) | | | | | | | | | | |
|----------------------------------|----------------------------------|---------|-----------------|---------|------|-----------------|-------|------|-----------------|--------|------|
| | Lake Trout | | | | | | | | | | |
| | Baseline (n = 10) | | 2013 (n = 5) | | | 2014 (n = 5) | | | 2016 (n = 3) | | |
| | Average | S.D. | Average | S.D. | <RDL | Average | S.D. | <RDL | Average | S.D. | <RDL |
| Metals and Trace Elements | | | | | | | | | | | |
| Aluminum | 0.5 | - | 0.5 | - | 5 | 0.5 | - | 5 | 0.5 | - | 3 |
| Arsenic | 0.07 | 0.044 | 0.13 | 0.080 | 0 | 0.080 | 0.044 | 0 | 0.10 | 0.020 | 0 |
| Cadmium | 0.002 | - | 0.002 | - | 5 | 0.002 | - | 5 | 0.002 | - | 3 |
| Cobalt | 0.002 | 0 | 0.002 | - | 5 | 0.004 | 0.002 | 1 | 0.004 | 0.0006 | 0 |
| Copper | 0.29 | 0.19 | 0.35 | 0.068 | 0 | 0.46 | 0.27 | 0 | 0.59 | 0.15 | 0 |
| Iron | 2.8 | 2.3 | 3.8 | 1.3 | 0 | 5.3 | 3.9 | 0 | 4.8 | 1.2 | 0 |
| Lead | 0.002 | - | 0.002 | - | 5 | 0.004 | 0.004 | 2 | 0.002 | - | 3 |
| Mercury | 0.33 | 0.16 | 0.18 | 0.072 | 0 | 0.20 | 0.052 | 0 | 0.17 | 0.031 | 0 |
| Molybdenum | 0.02 | - | 0.02 | - | 5 | 0.02 | - | 5 | 0.02 | - | 3 |
| Nickel | 0.01 | 0 | 0.01 | 0 | 4 | 0.02 | 0.02 | 3 | 0.01 | 0.006 | 2 |
| Selenium | 0.14 | 0.037 | 0.17 | 0.018 | 0 | 0.15 | 0.011 | 0 | 0.17 | 0.012 | 0 |
| Uranium | 0.001 | 0.0003 | 0.001 | - | 5 | 0.001 | - | 5 | 0.001 | - | 3 |
| Vanadium | 0.02 | - | 0.02 | - | 5 | 0.02 | - | 5 | 0.02 | - | 3 |
| Zinc | 3.7 | 0.86 | 3.6 | 0.46 | 0 | 4.0 | 0.88 | 0 | 3.5 | 0.30 | 0 |
| Radionuclides | | | | | | | | | | | |
| Lead-210 (Bq/g) | 0.001 | 0 | 0.001 | 0 | 4 | 0.001 | - | 5 | 0.001 | - | 3 |
| Polonium-210 (Bq/g) | 0.0002 | 0.00007 | 0.0002 | 0.00004 | 3 | 0.0002 | - | 5 | 0.0002 | - | 3 |
| Radium-226 (Bq/g) | 0.00006 | - | 0.00007 | 0.00002 | 4 | 0.00007 | - | 5 | 0.00006 | - | 3 |
| Thorium-230 (Bq/g) | 0.0001 | - | 0.0001 | - | 5 | 0.0001 | - | 5 | 0.0001 | - | 3 |

Appendix A, Table 1

Summary fish flesh chemistry results for the EARMP community program.

| Chemical ¹ | Stony Rapids (Fond du Lac River) | | | | | | | | | | |
|----------------------------------|----------------------------------|--------|-----------------|---------|------|-----------------|--------|------|-----------------|--------|------|
| | Lake Whitefish | | | | | | | | | | |
| | Baseline (n = 10) | | 2013 (n = 5) | | | 2014 (n = 5) | | | 2016 (n = 3) | | |
| | Average | S.D. | Average | S.D. | <RDL | Average | S.D. | <RDL | Average | S.D. | <RDL |
| Metals and Trace Elements | | | | | | | | | | | |
| Aluminum | 0.5 | - | 0.50 | - | 5 | 0.5 | - | 5 | 0.5 | 0.06 | 2 |
| Arsenic | 0.04 | 0.02 | 0.03 | 0.007 | 0 | 0.03 | 0.03 | 0 | 0.04 | 0.02 | 0 |
| Cadmium | 0.002 | - | 0.002 | - | 5 | 0.002 | - | 5 | 0.002 | - | 3 |
| Cobalt | 0.0060 | 0.0031 | 0.0046 | 0.00089 | 0 | 0.005 | 0.0021 | 0 | 0.014 | 0.0082 | 0 |
| Copper | 0.20 | 0.083 | 0.22 | 0.064 | 0 | 0.21 | 0.025 | 0 | 0.16 | 0.046 | 0 |
| Iron | 2.1 | 0.98 | 2.5 | 1.3 | 0 | 1.9 | 0.22 | 0 | 1.8 | 0.10 | 0 |
| Lead | 0.002 | - | 0.002 | - | 5 | 0.002 | 0.001 | 4 | 0.003 | 0.001 | 0 |
| Mercury | 0.13 | 0.10 | 0.06 | 0.021 | 0 | 0.093 | 0.027 | 0 | 0.041 | 0.0062 | 0 |
| Molybdenum | 0.02 | - | 0.02 | - | 5 | 0.02 | - | 5 | 0.02 | - | 3 |
| Nickel | 0.01 | 0.01 | 0.01 | - | 5 | 0.01 | 0.004 | 4 | 0.02 | 0.02 | 1 |
| Selenium | 0.15 | 0.049 | 0.13 | 0.013 | 0 | 0.12 | 0.029 | 0 | 0.13 | 0.036 | 0 |
| Uranium | 0.001 | 0 | 0.001 | - | 5 | 0.002 | 0.003 | 4 | 0.001 | - | 3 |
| Vanadium | 0.02 | - | 0.02 | - | 5 | 0.02 | - | 5 | 0.02 | - | 3 |
| Zinc | 4.9 | 1.7 | 4.3 | 0.61 | 0 | 3.7 | 0.53 | 0 | 4.6 | 0.26 | 0 |
| Radionuclides | | | | | | | | | | | |
| Lead-210 (Bq/g) | 0.001 | - | 0.001 | - | 5 | 0.001 | - | 5 | 0.001 | - | 3 |
| Polonium-210 (Bq/g) | 0.0003 | - | 0.0002 | 0 | 4 | 0.0002 | 0 | 4 | 0.0002 | - | 3 |
| Radium-226 (Bq/g) | 0.0002 | 0.0003 | 0.00007 | 0.00002 | 3 | 0.00006 | - | 5 | 0.00006 | - | 3 |
| Thorium-230 (Bq/g) | 0.0003 | 0.0006 | 0.0001 | - | 5 | 0.0001 | - | 5 | 0.0001 | - | 3 |

Appendix A, Table 1

Summary fish flesh chemistry results for the EARMP community program.

| Chemical ¹ | Uranium City (Prospector Bay) | | | | | | | | | | |
|----------------------------------|-------------------------------|----------|-----------------|----------|------|-----------------|---------|------|-----------------|-------|------|
| | Lake Trout | | | | | | | | | | |
| | Baseline (n = 5) | | 2013 (n = 5) | | | 2014 (n = 5) | | | 2016 (n = 3) | | |
| | Average | S.D. | Average | S.D. | <RDL | Average | S.D. | <RDL | Average | S.D. | <RDL |
| Metals and Trace Elements | | | | | | | | | | | |
| Aluminum | 0.5 | - | 0.5 | - | 5 | 0.5 | - | 5 | 0.6 | 0.1 | 0 |
| Arsenic | 0.08 | 0.03 | 0.06 | 0.02 | 0 | 0.084 | 0.07 | 0 | 0.12 | 0.061 | 0 |
| Cadmium | 0.002 | - | 0.002 | - | 5 | 0.002 | - | 5 | 0.002 | - | 3 |
| Cobalt | 0.002 | - | 0.002 | - | 5 | 0.002 | 0 | 2 | 0.003 | 0.001 | 2 |
| Copper | 0.24 | 0.029 | 0.22 | 0.042 | 0 | 0.29 | 0.027 | 0 | 0.36 | 0.24 | 0 |
| Iron | 2.8 | 1.1 | 3.0 | 2.6 | 0 | 2.7 | 0.62 | 0 | 3.4 | 2.6 | 0 |
| Lead | 0.002 | - | 0.003 | 0.002 | 1 | 0.002 | 0.0005 | 3 | 0.002 | 0 | 2 |
| Mercury | 0.20 | 0.046 | 0.14 | 0.056 | 0 | 0.17 | 0.069 | 0 | 0.15 | 0.031 | 0 |
| Molybdenum | 0.02 | - | 0.02 | - | 5 | 0.02 | - | 5 | 0.02 | - | 3 |
| Nickel | 0.01 | - | 0.01 | 0.004 | 4 | 0.01 | 0.004 | 3 | 0.01 | - | 3 |
| Selenium | 0.17 | 0.005 | 0.15 | 0.019 | 0 | 0.15 | 0.0055 | 0 | 0.15 | 0.036 | 0 |
| Uranium | 0.001 | - | 0.001 | - | 5 | 0.002 | 0.002 | 4 | 0.001 | - | 3 |
| Vanadium | 0.02 | - | 0.02 | - | 5 | 0.02 | - | 5 | 0.02 | - | 3 |
| Zinc | 4.3 | 0.65 | 3.0 | 0.48 | 0 | 4.8 | 2.0 | 0 | 4.2 | 1.7 | 0 |
| Radionuclides | | | | | | | | | | | |
| Lead-210 (Bq/g) | 0.001 | - | 0.001 | - | 5 | 0.001 | - | 5 | 0.001 | - | 3 |
| Polonium-210 (Bq/g) | 0.0002 | - | 0.0002 | 0 | 4 | 0.0002 | - | 5 | 0.0002 | - | 3 |
| Radium-226 (Bq/g) | 0.00006 | 0.000004 | 0.00009 | 0.000061 | 3 | 0.00006 | 0.00001 | 4 | 0.00006 | - | 3 |
| Thorium-230 (Bq/g) | 0.0001 | - | 0.0001 | 0.00004 | 4 | 0.0001 | - | 5 | 0.0001 | - | 3 |

Appendix A, Table 1

Summary fish flesh chemistry results for the EARMP community program.

| Chemical ¹ | Uranium City (Prospector Bay) | | | | | | | | | | | |
|----------------------------------|-------------------------------|--------|-----------------|---------|------|-----------------|---------|------|-----------------|--------|------|--|
| | Lake Whitefish | | | | | | | | | | | |
| | Baseline (n = 10) | | 2013 (n = 5) | | | 2014 (n = 5) | | | 2016 (n = 3) | | | |
| | Average | S.D. | Average | S.D. | <RDL | Average | S.D. | <RDL | Average | S.D. | <RDL | |
| Metals and Trace Elements | | | | | | | | | | | | |
| Aluminum | 0.5 | - | 0.5 | - | 3 | 0.5 | 0.04 | 4 | 0.5 | 0 | 2 | |
| Arsenic | 0.07 | 0.029 | 0.19 | 0.026 | 0 | 0.10 | 0.075 | 0 | 0.070 | 0.044 | 0 | |
| Cadmium | 0.002 | - | 0.002 | 0 | 2 | 0.002 | 0 | 4 | 0.002 | - | 3 | |
| Cobalt | 0.006 | 0.005 | 0.009 | 0.006 | 0 | 0.008 | 0.005 | 0 | 0.004 | 0.001 | 0 | |
| Copper | 0.15 | 0.026 | 0.26 | 0.11 | 0 | 0.29 | 0.11 | 0 | 0.20 | 0.032 | 0 | |
| Iron | 1.6 | 0.38 | 2.3 | 0.55 | 0 | 3.0 | 1.3 | 0 | 1.8 | 0.23 | 0 | |
| Lead | 0.002 | - | 0.002 | 0.0006 | 1 | 0.005 | 0.004 | 2 | 0.003 | 0.002 | 2 | |
| Mercury | 0.090 | 0.036 | 0.03 | 0.017 | 0 | 0.039 | 0.012 | 0 | 0.058 | 0.019 | 0 | |
| Molybdenum | 0.02 | - | 0.02 | - | 3 | 0.02 | - | 5 | 0.02 | - | 3 | |
| Nickel | 0.01 | - | 0.01 | 0 | 2 | 0.02 | 0.02 | 0 | 0.01 | - | 3 | |
| Selenium | 0.26 | 0.040 | 0.25 | 0.012 | 0 | 0.24 | 0.031 | 0 | 0.27 | 0.036 | 0 | |
| Uranium | 0.001 | - | 0.001 | - | 3 | 0.002 | 0.0009 | 2 | 0.001 | - | 3 | |
| Vanadium | 0.02 | - | 0.02 | - | 3 | 0.02 | - | 5 | 0.02 | - | 3 | |
| Zinc | 4.8 | 1.6 | 4.3 | 1.7 | 0 | 4.6 | 0.74 | 0 | 4.6 | 1.5 | 0 | |
| Radionuclides | | | | | | | | | | | | |
| Lead-210 (Bq/g) | 0.001 | - | 0.001 | - | 3 | 0.001 | - | 5 | 0.001 | - | 3 | |
| Polonium-210 (Bq/g) | 0.0003 | 0.0002 | 0.0002 | 0.00006 | 2 | 0.0007 | 0.0003 | 0 | 0.0002 | 0.0001 | 2 | |
| Radium-226 (Bq/g) | 0.00006 | - | 0.00006 | 0 | 2 | 0.00008 | 0.00002 | 3 | 0.00006 | - | 3 | |
| Thorium-230 (Bq/g) | 0.0001 | - | 0.0001 | - | 3 | 0.0001 | - | 5 | 0.0001 | - | 3 | |

Appendix A, Table 1

Summary fish flesh chemistry results for the EARMP community program.

| Chemical ¹ | Wollaston Lake/Hatchet Lake (Wollaston Lake) | | | | | | | | | | |
|----------------------------------|--|---------|-----------------|---------|------|-----------------|--------|------|-----------------|-------|------|
| | Lake Trout | | | | | | | | | | |
| | Baseline (n = 10) | | 2013 (n = 5) | | | 2014 (n = 5) | | | 2016 (n = 3) | | |
| | Average | S.D. | Average | S.D. | <RDL | Average | S.D. | <RDL | Average | S.D. | <RDL |
| Metals and Trace Elements | | | | | | | | | | | |
| Aluminum | 0.5 | - | 0.50 | - | 5 | 0.5 | - | 5 | 0.5 | - | 3 |
| Arsenic | 0.04 | 0.02 | 0.03 | 0.02 | 0 | 0.03 | 0.01 | 0 | 0.05 | 0.04 | 0 |
| Cadmium | 0.002 | - | 0.002 | - | 5 | 0.002 | - | 5 | 0.002 | - | 3 |
| Cobalt | 0.002 | - | 0.002 | - | 5 | 0.003 | 0.002 | 2 | 0.003 | 0.001 | 1 |
| Copper | 0.45 | 0.15 | 0.34 | 0.030 | 0 | 0.31 | 0.077 | 0 | 0.28 | 0.072 | 0 |
| Iron | 3.0 | 1.3 | 2.4 | 0.36 | 0 | 2.0 | 0.43 | 0 | 2.7 | 1.1 | 0 |
| Lead | 0.002 | - | 0.003 | 0.001 | 4 | 0.002 | 0.0009 | 4 | 0.002 | - | 3 |
| Mercury | 0.16 | 0.035 | 0.12 | 0.038 | 0 | 0.24 | 0.083 | 0 | 0.20 | 0.035 | 0 |
| Molybdenum | 0.02 | - | 0.02 | - | 5 | 0.02 | - | 5 | 0.02 | - | 3 |
| Nickel | 0.01 | 0.003 | 0.01 | - | 5 | 0.02 | 0.02 | 3 | 0.01 | - | 3 |
| Selenium | 0.21 | 0.036 | 0.20 | 0.011 | 0 | 0.19 | 0.019 | 0 | 0.23 | 0.017 | 0 |
| Uranium | 0.001 | - | 0.001 | 0.0004 | 4 | 0.001 | 0 | 4 | 0.001 | - | 3 |
| Vanadium | 0.02 | - | 0.02 | - | 5 | 0.02 | - | 5 | 0.02 | - | 3 |
| Zinc | 4.4 | 1.3 | 4.4 | 0.83 | 0 | 3.2 | 0.83 | 0 | 3.0 | 0.85 | 0 |
| Radionuclides | | | | | | | | | | | |
| Lead-210 (Bq/g) | 0.001 | 0 | 0.001 | - | 5 | 0.001 | - | 5 | 0.001 | - | 3 |
| Polonium-210 (Bq/g) | 0.0002 | - | 0.0002 | - | 5 | 0.0002 | - | 5 | 0.0002 | - | 3 |
| Radium-226 (Bq/g) | 0.00009 | 0.00008 | 0.00009 | 0.00006 | 2 | 0.00005 | - | 5 | 0.00006 | - | 3 |
| Thorium-230 (Bq/g) | 0.0001 | - | 0.0001 | - | 5 | 0.0001 | - | 5 | 0.0001 | - | 3 |

Appendix A, Table 1

Summary fish flesh chemistry results for the EARMP community program.

| Chemical ¹ | Wollaston Lake/Hatchet Lake (Wollaston Lake) | | | | | | | | | | |
|----------------------------------|--|--------|-----------------|--------|------|-----------------|---------|------|-----------------|--------|------|
| | Lake Whitefish | | | | | | | | | | |
| | Baseline (n = 10) | | 2013 (n = 5) | | | 2014 (n = 5) | | | 2016 (n = 3) | | |
| | Average | S.D. | Average | S.D. | <RDL | Average | S.D. | <RDL | Average | S.D. | <RDL |
| Metals and Trace Elements | | | | | | | | | | | |
| Aluminum | 0.5 | - | 0.5 | - | 5 | 0.5 | - | 5 | 0.5 | 0 | 2 |
| Arsenic | 0.16 | 0.042 | 0.15 | 0.035 | 0 | 0.11 | 0.035 | 0 | 0.11 | 0.076 | 0 |
| Cadmium | 0.002 | - | 0.002 | - | 5 | 0.002 | - | 5 | 0.002 | - | 3 |
| Cobalt | 0.002 | 0.0010 | 0.002 | 0 | 4 | 0.003 | 0.001 | 1 | 0.003 | 0.0006 | 0 |
| Copper | 0.16 | 0.045 | 0.14 | 0.015 | 0 | 0.15 | 0.016 | 0 | 0.26 | 0.16 | 0 |
| Iron | 1.7 | 0.79 | 2.1 | 0.59 | 0 | 1.9 | 0.57 | 0 | 3.8 | 1.9 | 0 |
| Lead | 0.002 | 0 | 0.002 | 0 | 4 | 0.003 | 0.001 | 2 | 0.002 | - | 3 |
| Mercury | 0.050 | 0.019 | 0.040 | 0.023 | 0 | 0.088 | 0.015 | 0 | 0.081 | 0.034 | 0 |
| Molybdenum | 0.02 | - | 0.02 | - | 5 | 0.02 | - | 5 | 0.02 | - | 3 |
| Nickel | 0.01 | - | 0.01 | 0.004 | 3 | 0.01 | 0.004 | 1 | 0.01 | 0 | 2 |
| Selenium | 0.45 | 0.10 | 0.36 | 0.046 | 0 | 0.38 | 0.039 | 0 | 0.55 | 0.40 | 0 |
| Uranium | 0.001 | - | 0.001 | - | 5 | 0.001 | 0 | 4 | 0.001 | - | 3 |
| Vanadium | 0.02 | - | 0.02 | - | 5 | 0.02 | - | 5 | 0.02 | - | 3 |
| Zinc | 4.1 | 0.67 | 4.0 | 0.88 | 0 | 3.6 | 0.89 | 0 | 4.9 | 2.4 | 0 |
| Radionuclides | | | | | | | | | | | |
| Lead-210 (Bq/g) | 0.002 | - | 0.0009 | 0.0003 | 4 | 0.001 | - | 5 | 0.001 | - | 3 |
| Polonium-210 (Bq/g) | 0.0005 | 0.0004 | 0.0004 | 0.0004 | 3 | 0.0003 | 0.0001 | 1 | 0.0004 | 0.0003 | 1 |
| Radium-226 (Bq/g) | 0.0005 | 0.0008 | 0.0003 | 0.0004 | 2 | 0.00007 | 0.00002 | 4 | 0.00006 | - | 3 |
| Thorium-230 (Bq/g) | 0.0007 | - | 0.0001 | - | 5 | 0.0001 | - | 5 | 0.0001 | - | 3 |

¹All concentrations are reported on a µg/g wet weight basis, except when specified otherwise.

²Regional reference data are from reference lakes north of Point's North sampled between 2006 and 2015. The median corresponds to the 50th percentile, while the lower and upper limits are the 2.5th and 97.5th percentiles that delimit the 95% range of the reference data.

³Regional reference ranges could not be computed when all or nearly all values were lower than the reported detection limit (RDL).

S.D. = Standard deviation; S.D. of 0 signify no variance between samples; "-" indicates insufficient data to calculate S.D.

<RDL = number of samples with values below the laboratory reported detection limit.

Values less than the RDL were set equal to the RDL when calculating summary statistics.

Appendix A, Table 2

Summary blueberry chemistry results for the EARMP community program.

| Chemical ¹ | Regional Reference Range ^{2,3} | | | |
|----------------------------------|---|--------|-------------|----|
| | Lower Limit | Median | Upper Limit | n |
| Metals and Trace Elements | | | | |
| Aluminum | 4.9 | 12.1 | 97.7 | 43 |
| Arsenic | - | - | - | 22 |
| Cadmium | - | - | - | 22 |
| Cobalt | <0.01 | 0.01 | 0.03 | 22 |
| Copper | 2.1 | 3.6 | 6.9 | 43 |
| Iron | 7.9 | 15.3 | 68.6 | 43 |
| Lead | <0.01 | 0.01 | 0.05 | 22 |
| Molybdenum | <0.1 | 0.1 | 0.3 | 43 |
| Nickel | 0.1 | 0.57 | 1.12 | 43 |
| Selenium | - | - | - | 22 |
| Uranium | <0.002 | 0.003 | 0.017 | 21 |
| Vanadium | - | - | - | 22 |
| Zinc | 3.6 | 6.9 | 10.6 | 43 |
| Radionuclides | | | | |
| Lead-210 (Bq/g) | <0.001 | 0.004 | 0.02 | 19 |
| Polonium-210 (Bq/g) | <0.002 | 0.003 | 0.014 | 8 |
| Radium-226 (Bq/g) | 0.001 | 0.003 | 0.009 | 30 |
| Thorium-230 (Bq/g) | - | - | - | 8 |

Appendix A, Table 2

Summary blueberry chemistry results for the EARMP community program.

| Chemical ¹ | Black Lake | | | | | | | | | | | | | |
|----------------------------------|----------------------|---------|-----------------|--------|------|-----------------|--------|------|-----------------|---------|------|-----------------|--------|------|
| | Baseline (n = 10) | | 2013 (n = 5) | | | 2014 (n = 5) | | | 2015 (n = 3) | | | 2016 (n = 3) | | |
| | Average | S.D. | Average | S.D. | <RDL | Average | S.D. | <RDL | Average | S.D. | <RDL | Average | S.D. | <RDL |
| Metals and Trace Elements | | | | | | | | | | | | | | |
| Aluminum | 7.9 | 2.1 | 9.2 | 1.8 | 0 | 14 | 3.2 | 0 | 23 | 20 | 0 | 9.2 | 3.4 | 0 |
| Arsenic | 0.05 | - | 0.05 | - | 5 | 0.05 | - | 5 | 0.05 | - | 3 | 0.05 | - | 3 |
| Cadmium | 0.01 | - | 0.01 | 0.004 | 3 | 0.01 | - | 5 | 0.01 | - | 3 | 0.01 | - | 3 |
| Cobalt | 0.01 | 0.01 | 0.01 | 0 | 4 | 0.01 | 0.005 | 0 | 0.02 | 0.01 | 1 | 0.02 | 0.006 | 0 |
| Copper | 3.2 | 0.46 | 2.0 | 0.65 | 0 | 3.8 | 0.20 | 0 | 3.4 | 0.060 | 0 | 3.0 | 0.55 | 0 |
| Iron | 11 | 3.5 | 7.4 | 1.9 | 0 | 21 | 5.8 | 0 | 28 | 21 | 0 | 13 | 2.6 | 0 |
| Lead | 0.027 | 0.024 | 0.016 | 0.0055 | 2 | 0.022 | 0.0084 | 1 | 0.010 | 0.0058 | 1 | 0.053 | 0.067 | 1 |
| Molybdenum | 0.1 | 0.05 | 0.1 | 0.04 | 1 | 0.2 | 0.05 | 2 | 0.1 | 0.06 | 0 | 0.2 | 0.06 | 0 |
| Nickel | 0.55 | 0.12 | 0.42 | 0.095 | 0 | 0.62 | 0.13 | 0 | 0.52 | 0.22 | 0 | 0.54 | 0.12 | 0 |
| Selenium | 0.05 | 0.01 | 0.05 | - | 5 | 0.05 | - | 5 | 0.05 | - | 3 | 0.05 | - | 3 |
| Uranium | 0.01 | - | 0.01 | 0 | 4 | 0.02 | 0.008 | 1 | 0.01 | - | 3 | 0.01 | - | 3 |
| Vanadium | 0.1 | - | 0.1 | - | 5 | 0.1 | - | 5 | 0.1 | - | 3 | 0.1 | - | 3 |
| Zinc | 5.3 | 0.90 | 5.9 | 1.3 | 0 | 6.7 | 1.3 | 0 | 5.2 | 0.40 | 0 | 6.3 | 0.46 | 0 |
| Radionuclides | | | | | | | | | | | | | | |
| Lead-210 (Bq/g) | 0.005 | 0.004 | 0.001 | 0.0005 | 3 | 0.001 | 0.0004 | 4 | 0.002 | 0.001 | 0 | 0.001 | 0.0006 | 1 |
| Polonium-210 (Bq/g) | 0.0015 | 0.00053 | 0.0007 | 0.0001 | 0 | 0.0007 | 0.0002 | 0 | 0.0015 | 0.00017 | 0 | 0.0007 | 0.0001 | 0 |
| Radium-226 (Bq/g) | 0.002 | 0.001 | 0.003 | 0.0008 | 0 | 0.001 | 0.0006 | 0 | 0.005 | 0.002 | 0 | 0.002 | 0.0006 | 0 |
| Thorium-230 (Bq/g) | 0.002 | 0.0005 | 0.002 | - | 5 | 0.001 | - | 5 | 0.001 | 0 | 2 | 0.001 | - | 3 |

Appendix A, Table 2

Summary blueberry chemistry results for the EARMP community program.

| Chemical ¹ | Camsell Portage | | | | | | | |
|----------------------------------|---------------------|---------|-----------------|--------|------|-----------------|---------|------|
| | Baseline (n = 5) | | 2013 (n = 5) | | | 2014 (n = 3) | | |
| | Average | S.D. | Average | S.D. | <RDL | Average | S.D. | <RDL |
| Metals and Trace Elements | | | | | | | | |
| Aluminum | 7.0 | 0.57 | 7.1 | 0.39 | 0 | 11 | 2.2 | 0 |
| Arsenic | 0.05 | - | 0.05 | - | 5 | 0.05 | - | 3 |
| Cadmium | 0.01 | - | 0.01 | - | 5 | 0.01 | - | 3 |
| Cobalt | 0.01 | 0.004 | 0.01 | - | 5 | 0.01 | 0 | 2 |
| Copper | 3.2 | 0.39 | 2.2 | 0.089 | 0 | 3.7 | 0.17 | 0 |
| Iron | 12 | 3.7 | 10 | 1.9 | 0 | 16 | 1.0 | 0 |
| Lead | 0.016 | 0.013 | 0.022 | 0.0084 | 1 | 0.013 | 0.0058 | 0 |
| Molybdenum | 0.1 | 0.05 | 0.2 | 0.04 | 0 | 0.2 | 0 | 0 |
| Nickel | 0.53 | 0.17 | 0.15 | 0.019 | 0 | 0.37 | 0.017 | 0 |
| Selenium | 0.05 | - | 0.05 | - | 5 | 0.05 | - | 3 |
| Uranium | 0.02 | 0.03 | 0.01 | - | 5 | 0.01 | 0 | 0 |
| Vanadium | 0.1 | - | 0.1 | - | 5 | 0.1 | - | 3 |
| Zinc | 8.5 | 2.8 | 6.6 | 1.1 | | 7.4 | 0.47 | 0 |
| Radionuclides | | | | | | | | |
| Lead-210 (Bq/g) | 0.002 | 0.001 | 0.007 | 0.004 | 2 | 0.002 | 0 | 0 |
| Polonium-210 (Bq/g) | 0.0014 | 0.00027 | 0.0010 | 0 | 4 | 0.0014 | 0.00032 | 0 |
| Radium-226 (Bq/g) | 0.003 | 0.001 | 0.003 | 0.0008 | 0 | 0.003 | 0.0006 | 0 |
| Thorium-230 (Bq/g) | 0.001 | - | 0.002 | - | 5 | 0.001 | - | 3 |

Appendix A, Table 2

Summary blueberry chemistry results for the EARMP community program.

| Chemical ¹ | Fond du Lac | | | | | | | | | | | | | |
|----------------------------------|----------------------|---------|-----------------|--------|------|-----------------|---------|------|-----------------|--------|------|-----------------|---------|------|
| | Baseline (n = 10) | | 2013 (n = 5) | | | 2014 (n = 5) | | | 2015 (n = 3) | | | 2016 (n = 3) | | |
| | Average | S.D. | Average | S.D. | <RDL | Average | S.D. | <RDL | Average | S.D. | <RDL | Average | S.D. | <RDL |
| Metals and Trace Elements | | | | | | | | | | | | | | |
| Aluminum | 9.4 | 4.9 | 15 | 4.0 | 0 | 25 | 12 | 0 | 29 | 16 | 0 | 20 | 12 | 0 |
| Arsenic | 0.05 | - | 0.05 | - | 5 | 0.05 | - | 5 | 0.05 | - | 3 | 0.05 | - | 3 |
| Cadmium | 0.01 | - | 0.01 | - | 5 | 0.01 | - | 5 | 0.01 | - | 3 | 0.01 | - | 3 |
| Cobalt | 0.01 | 0.005 | 0.02 | 0.005 | 1 | 0.04 | 0.01 | 0 | 0.02 | 0.006 | 0 | 0.02 | 0.01 | 1 |
| Copper | 3.3 | 0.49 | 2.2 | 0.43 | 0 | 5.3 | 0.27 | 0 | 3.6 | 0.44 | 0 | 4.2 | 0.45 | 0 |
| Iron | 12 | 3.9 | 15 | 5.5 | 0 | 35 | 12 | 0 | 31 | 20 | 0 | 21 | 8.1 | 0 |
| Lead | 0.02 | 0.008 | 0.02 | 0.01 | 0 | 0.08 | 0.07 | 0 | 0.03 | 0.02 | 0 | 0.02 | 0.006 | 0 |
| Molybdenum | 0.26 | 0.13 | 0.26 | 0.055 | 0 | 0.52 | 0.084 | 0 | 0.30 | 0.060 | 0 | 0.97 | 0.51 | 0 |
| Nickel | 0.66 | 0.16 | 0.55 | 0.12 | 0 | 1.7 | 0.72 | 0 | 0.90 | 0.33 | 0 | 1.3 | 0.38 | 0 |
| Selenium | 0.06 | 0.01 | 0.05 | - | 5 | 0.05 | - | 5 | 0.05 | - | 3 | 0.05 | - | 3 |
| Uranium | 0.01 | 0.003 | 0.01 | - | 5 | 0.01 | 0 | 1 | 0.01 | - | 3 | 0.01 | - | 3 |
| Vanadium | 0.1 | - | 0.1 | - | 5 | 0.1 | - | 5 | 0.1 | - | 3 | 0.1 | - | 3 |
| Zinc | 6.4 | 1.6 | 7.0 | 0.87 | 0 | 7.7 | 0.79 | 0 | 6.9 | 0.46 | 0 | 7.4 | 0.81 | 0 |
| Radionuclides | | | | | | | | | | | | | | |
| Lead-210 (Bq/g) | 0.004 | 0.004 | 0.004 | 0.003 | 2 | 0.001 | 0 | 3 | 0.004 | 0.0006 | 0 | 0.001 | 0.0006 | 2 |
| Polonium-210 (Bq/g) | 0.0016 | 0.00092 | 0.0023 | 0.0025 | 1 | 0.0011 | 0.00043 | 0 | 0.0021 | 0.0011 | 0 | 0.00080 | 0.00040 | 0 |
| Radium-226 (Bq/g) | 0.003 | 0.001 | 0.004 | 0.001 | 0 | 0.002 | 0.001 | 1 | 0.003 | 0.0008 | 0 | 0.003 | 0.001 | 0 |
| Thorium-230 (Bq/g) | 0.001 | - | 0.002 | - | 5 | 0.001 | - | 5 | 0.001 | 0.00 | 2 | 0.001 | - | 3 |

Appendix A, Table 2

Summary blueberry chemistry results for the EARMP community program.

| Chemical ¹ | Stony Rapids | | | | | | | | | | | | | |
|----------------------------------|----------------------|---------|-----------------|--------|------|-----------------|--------|------|-----------------|---------|------|-----------------|---------|------|
| | Baseline (n = 10) | | 2013 (n = 5) | | | 2014 (n = 5) | | | 2015 (n = 3) | | | 2016 (n = 3) | | |
| | Average | S.D. | Average | S.D. | <RDL | Average | S.D. | <RDL | Average | S.D. | <RDL | Average | S.D. | <RDL |
| Metals and Trace Elements | | | | | | | | | | | | | | |
| Aluminum | 15 | 10 | 244 | 43 | | 8.9 | 0.86 | 0 | 17 | 6.4 | 0 | 16 | 2.5 | 0 |
| Arsenic | 0.05 | - | 0.05 | - | 5 | 0.05 | - | 5 | 0.05 | - | 3 | 0.05 | - | 3 |
| Cadmium | 0.01 | 0.003 | 0.01 | - | 5 | 0.01 | - | 5 | 0.01 | - | 3 | 0.01 | - | 3 |
| Cobalt | 0.02 | 0.02 | 0.01 | - | 5 | 0.03 | 0.04 | 1 | 0.01 | 0 | 2 | 0.01 | 0 | 0 |
| Copper | 2.5 | 0.49 | 2.4 | 0.25 | | 4.3 | 0.19 | 0 | 3.4 | 0.21 | 0 | 3.3 | 0.23 | 0 |
| Iron | 15 | 7.2 | 11 | 0.91 | | 14 | 0.84 | 0 | 17 | 3.5 | 0 | 19 | 2.6 | 0 |
| Lead | 0.03 | 0.03 | 0.01 | 0.004 | 3 | 0.01 | 0.004 | 2 | 0.10 | 0.1 | 0 | 0.03 | 0.03 | 0 |
| Molybdenum | 0.2 | 0.1 | 0.1 | 0.04 | 2 | 0.2 | 0 | 0 | 0.1 | 0 | 2 | 0.1 | 0 | 0 |
| Nickel | 0.59 | 0.19 | 0.33 | 0.073 | | 1.0 | 0.31 | 0 | 0.70 | 0.080 | 0 | 0.61 | 0.064 | 0 |
| Selenium | 0.05 | 0 | 0.05 | - | 5 | 0.05 | - | 5 | 0.05 | - | 3 | 0.05 | - | 3 |
| Uranium | 0.01 | 0.004 | 0.01 | - | 5 | 0.01 | 0.009 | 3 | 0.01 | - | 3 | 0.01 | - | 3 |
| Vanadium | 0.1 | - | 0.1 | - | 5 | 0.1 | - | 5 | 0.1 | - | 3 | 0.1 | - | 3 |
| Zinc | 4.7 | 1.0 | 6.3 | 0.75 | | 5.5 | 0.38 | 0 | 5.4 | 0.20 | 0 | 6.3 | 0.67 | 0 |
| Radionuclides | | | | | | | | | | | | | | |
| Lead-210 (Bq/g) | 0.008 | 0.003 | 0.005 | 0.001 | 4 | 0.001 | 0 | 3 | 0.002 | 0 | 0 | 0.002 | 0 | 1 |
| Polonium-210 (Bq/g) | 0.0016 | 0.00070 | 0.0010 | 0 | 3 | 0.0006 | 0.0002 | 1 | 0.0013 | 0.00012 | 0 | 0.0010 | 0.00010 | 0 |
| Radium-226 (Bq/g) | 0.003 | 0.002 | 0.014 | 0.0015 | | 0.004 | 0.005 | 0 | 0.003 | 0.001 | 0 | 0.002 | 0.0006 | 0 |
| Thorium-230 (Bq/g) | 0.002 | - | 0.002 | - | 5 | 0.001 | - | 5 | 0.001 | 0.0 | 2 | 0.001 | - | 3 |

Appendix A, Table 2

Summary blueberry chemistry results for the EARMP community program.

| Chemical ¹ | Uranium City | | | | |
|----------------------------------|---------------------|--------|-----------------|---------|------|
| | Baseline (n = 5) | | 2014 (n = 3) | | |
| | Average | S.D. | Average | S.D. | <RDL |
| Metals and Trace Elements | | | | | |
| Aluminum | 5.9 | 1.6 | 9.3 | 1.7 | 0 |
| Arsenic | 0.05 | - | 0.05 | - | 3 |
| Cadmium | 0.01 | - | 0.01 | - | 3 |
| Cobalt | 0.01 | 0.004 | 0.03 | 0.03 | 2 |
| Copper | 3.5 | 0.4 | 4.1 | 0 | 0 |
| Iron | 10 | 1.3 | 14 | 0 | 0 |
| Lead | 0.01 | 0.004 | 0.03 | 0.03 | 1 |
| Molybdenum | 0.2 | 0.1 | 0.2 | 0 | 0 |
| Nickel | 0.51 | 0.055 | 0.43 | 0.067 | 0 |
| Selenium | 0.05 | - | 0.05 | - | 3 |
| Uranium | 0.01 | - | 0.01 | 0 | 2 |
| Vanadium | 0.1 | - | 0.1 | - | 3 |
| Zinc | 5.8 | 0.9 | 6.5 | 0.15 | 0 |
| Radionuclides | | | | | |
| Lead-210 (Bq/g) | 0.006 | 0.008 | 0.003 | 0.002 | 0 |
| Polonium-210 (Bq/g) | 0.00276 | 0.0014 | 0.0030 | 0.00015 | 0 |
| Radium-226 (Bq/g) | 0.022 | 0.044 | 0.002 | 0.001 | 0 |
| Thorium-230 (Bq/g) | 0.0012 | 0.0004 | 0.001 | - | 3 |

Appendix A, Table 2

Summary blueberry chemistry results for the EARMP community program.

| Chemical ¹ | Wollaston Lake/Hatchet Lake | | | | | | | | | | | | | |
|----------------------------------|-----------------------------|--------|-----------------|---------|------|-----------------|---------|------|-----------------|---------|------|-----------------|---------|------|
| | Baseline (n = 10) | | 2013 (n = 5) | | | 2014 (n = 5) | | | 2015 (n = 3) | | | 2016 (n = 3) | | |
| | Average | S.D. | Average | S.D. | <RDL | Average | S.D. | <RDL | Average | S.D. | <RDL | Average | S.D. | <RDL |
| Metals and Trace Elements | | | | | | | | | | | | | | |
| Aluminum | 12 | 7.77 | 7.0 | 0.32 | 0 | 11 | 0.84 | 0 | 19 | 7.9 | 0 | 13 | 2.5 | 0 |
| Arsenic | 0.05 | - | 0.05 | - | 5 | 0.05 | - | 5 | 0.05 | - | 3 | 0.05 | - | 3 |
| Cadmium | 0.01 | - | 0.01 | - | 5 | 0.01 | - | 5 | 0.01 | - | 3 | 0.01 | - | 3 |
| Cobalt | 0.01 | 0.003 | 0.01 | 0 | 3 | 0.08 | 0.09 | 0 | 0.02 | 0.01 | 0 | 0.01 | 0.006 | 0 |
| Copper | 2.8 | 0.51 | 1.8 | 0.21 | 0 | 4.5 | 0.15 | 0 | 3.5 | 0.15 | 0 | 3.5 | 0.36 | 0 |
| Iron | 13 | 5.5 | 9.4 | 0.55 | 0 | 17 | 0.55 | 0 | 20 | 7.6 | 0 | 13 | 1.2 | 0 |
| Lead | 0.02 | 0.01 | 0.02 | 0.009 | 3 | 0.02 | 0.005 | 2 | 0.02 | 0.006 | 0 | 0.03 | 0.02 | 0 |
| Molybdenum | 0.1 | 0.07 | 0.1 | 0.04 | 3 | 0.4 | 0.05 | 0 | 0.1 | 0.06 | 0 | 0.2 | 0.06 | 0 |
| Nickel | 0.56 | 0.13 | 0.22 | 0.026 | 0 | 1.2 | 0.22 | 0 | 1.1 | 0.42 | 0 | 0.61 | 0.068 | 0 |
| Selenium | 0.05 | 0 | 0.05 | - | 5 | 0.05 | - | 5 | 0.05 | - | 3 | 0.05 | - | 3 |
| Uranium | 0.01 | 0.003 | 0.01 | - | 5 | 0.01 | 0.009 | 3 | 0.01 | - | 3 | 0.01 | - | 3 |
| Vanadium | 0.1 | - | 0.1 | - | 5 | 0.1 | - | 5 | 0.1 | - | 3 | 0.1 | - | 3 |
| Zinc | 5.7 | 1.5 | 5.9 | 0.45 | | 7.5 | 0.33 | 0 | 6.6 | 0.53 | 0 | 5.6 | 0.29 | 0 |
| Radionuclides | | | | | | | | | | | | | | |
| Lead-210 (Bq/g) | 0.005 | 0.004 | 0.006 | 0.004 | 2 | 0.001 | 0 | 4 | 0.002 | 0 | 1 | 0.004 | 0.0006 | 0 |
| Polonium-210 (Bq/g) | 0.0022 | 0.0013 | 0.0012 | 0.00045 | 4 | 0.0007 | 0.00019 | 0 | 0.0013 | 0.00031 | 0 | 0.0015 | 0.00040 | 0 |
| Radium-226 (Bq/g) | 0.003 | 0.002 | 0.006 | 0.002 | 0 | 0.004 | 0.0011 | 0 | 0.005 | 0.0008 | 0 | 0.002 | 0.001 | 1 |
| Thorium-230 (Bq/g) | 0.002 | - | 0.002 | - | 5 | 0.001 | - | 5 | 0.001 | - | 3 | 0.001 | - | 3 |

¹All concentrations are in µg/g on a dry weight basis, unless specified otherwise.

²Regional reference data are from the AWG program (2000 to 2010) and the Uranium City Country Foods program (2011). Data are not available from all communities in all years. The median corresponds to the 50th percentile, while the lower and upper limits are the 2.5th and 97.5th percentiles that delimit the 95% range of the reference data.

³Regional reference ranges could not be computed when all or nearly all values were lower than the reported detection limit (RDL).

S.D. = Standard deviation; S.D. of 0 signify "no variance between samples"; "-" indicates insufficient data to calculate S.D.

<RDL = less than the laboratory reported detection limit.

Values less than the RDL were set equal to the RDL when calculating summary statistics.

Appendix A, Table 3

Summary bog cranberry chemistry results for the EARMP community program.

| Chemical ¹ | Regional Reference Range ^{2,3} | | | |
|-----------------------|---|--------|-------------|----|
| | Lower Limit | Median | Upper Limit | n |
| Metals | | | | |
| Aluminum | 6.5 | 21.1 | 79.9 | 18 |
| Arsenic | - | - | - | 55 |
| Cadmium | <0.01 | <0.01 | 0.03 | 18 |
| Cobalt | <0.01 | <0.01 | 0.02 | 18 |
| Copper | 2.4 | 3.7 | 5.7 | 55 |
| Iron | 8.4 | 12.1 | 87.6 | 55 |
| Lead | <0.01 | 0.02 | 0.05 | 18 |
| Molybdenum | <0.1 | <0.1 | 0.2 | 55 |
| Nickel | <0.1 | 0.35 | 0.79 | 55 |
| Selenium | - | - | - | 55 |
| Uranium | 0.001 | 0.003 | 0.029 | 37 |
| Vanadium | - | - | - | 55 |
| Zinc | 4.9 | 7.2 | 10.5 | 55 |
| Radionuclides | | | | |
| Lead-210 (Bq/g) | <0.0003 | 0.0015 | 0.0045 | 17 |
| Polonium-210 (Bq/g) | - | - | - | 0 |
| Radium-226 (Bq/g) | <0.0003 | 0.0018 | 0.01 | 55 |
| Thorium-230 (Bq/g) | - | - | - | 0 |

Appendix A, Table 3

Summary bog cranberry chemistry results for the EARMP community program.

| Chemical ¹ | Camsell Portage | | | | | | | | | | |
|-----------------------|---------------------|---------|-----------------|------|------|-----------------|--------|------|-----------------|---------|------|
| | Baseline (n = 5) | | 2014 (n = 2) | | | 2015 (n = 3) | | | 2016 (n = 3) | | |
| | Average | SD | Average | S.D. | <RDL | Average | S.D. | <RDL | Average | S.D. | <RDL |
| Metals | | | | | | | | | | | |
| Aluminum | 18 | 1.3 | 17 | - | 0 | 19 | 2.5 | 0 | 22 | 0.58 | 0 |
| Arsenic | 0.05 | 0 | 0.05 | - | 2 | 0.05 | - | 3 | 0.05 | - | 3 |
| Cadmium | 0.01 | 0 | 0.01 | - | 2 | 0.01 | 0 | 1 | 0.01 | - | 3 |
| Cobalt | 0.01 | 0 | 0.01 | - | 0 | 0.02 | 0 | 0 | 0.01 | 0 | 2 |
| Copper | 4.4 | 0.52 | 4.2 | - | 0 | 4.3 | 0.50 | 0 | 3.6 | 0.058 | 0 |
| Iron | 10 | 0.54 | 15 | - | 0 | 14 | 2.1 | 0 | 9.0 | 0.25 | 0 |
| Lead | 0.01 | 0.004 | 0.02 | - | 1 | 0.02 | 0.01 | 2 | 0.01 | 0.006 | 1 |
| Molybdenum | 0.1 | 0.05 | 0.1 | - | 2 | 0.2 | 0 | 0 | 0.1 | - | 3 |
| Nickel | 0.49 | 0.10 | 0.53 | - | 0 | 0.38 | 0.029 | 0 | 0.27 | 0.045 | 0 |
| Selenium | 0.05 | 0 | 0.05 | - | 2 | 0.05 | - | 3 | 0.05 | - | 3 |
| Uranium | 0.01 | 0.004 | 0.01 | - | 1 | 0.02 | 0 | 2 | 0.01 | - | 3 |
| Vanadium | 0.1 | 0 | 0.1 | - | 2 | 0.1 | - | 3 | 0.1 | - | 3 |
| Zinc | 6.3 | 0.57 | 6.2 | - | 0 | 7.9 | 0.12 | 0 | 7.0 | 0.15 | 0 |
| Radionuclides | | | | | | | | | | | |
| Lead-210 (Bq/g) | 0.013 | 0.006 | 0.001 | - | 1 | 0.002 | 0 | 0 | 0.003 | 0.001 | 0 |
| Polonium-210 (Bq/g) | 0.0022 | 0.00084 | 0.0011 | - | 0 | 0.0010 | 0 | 0 | 0.0010 | 0.00010 | 0 |
| Radium-226 (Bq/g) | 0.004 | 0.002 | 0.0007 | - | 1 | 0.001 | 0.0006 | 0 | 0.002 | 0 | 0 |
| Thorium-230 (Bq/g) | 0.002 | 0 | 0.001 | - | 2 | 0.001 | - | 3 | 0.001 | - | 3 |

Appendix A, Table 3

Summary bog cranberry chemistry results for the EARMP community program.

| Chemical ¹ | Uranium City | | | | | | | | | | | | |
|-----------------------|---------------------|--------|-----------------|---------|------|-----------------|------|------|-----------------|------|-----------------|---------|------|
| | Baseline (n = 5) | | 2013 (n = 5) | | | 2014 (n = 2) | | | 2015 (n = 1) | | 2016 (n = 3) | | |
| | Average | S.D. | Average | S.D. | <RDL | Average | S.D. | <RDL | Value | <RDL | Average | S.D. | <RDL |
| Metals | | | | | | | | | | | | | |
| Aluminum | 22 | 5.8 | 40 | 15 | 0 | 23 | - | 0 | 20 | 0 | 20 | 4.4 | 0 |
| Arsenic | 0.05 | - | 0.05 | - | 5 | 0.05 | - | 2 | 0.05 | 1 | 0.05 | - | 3 |
| Cadmium | 0.01 | - | 0.02 | 0.004 | 1 | 0.01 | - | 2 | 0.01 | 1 | 0.01 | - | 3 |
| Cobalt | 0.04 | 0.05 | 0.02 | 0.004 | 0 | 0.05 | - | 0 | 0.01 | 1 | 0.02 | 0.006 | 0 |
| Copper | 3.6 | 1.4 | 2.5 | 0.42 | 0 | 6.0 | - | 0 | 3.4 | 0 | 4.6 | 0.69 | 0 |
| Iron | 15 | 3.9 | 18 | 7.2 | 0 | 13 | - | 0 | 12 | 0 | 12 | 2.1 | 0 |
| Lead | 0.01 | 0.004 | 0.06 | 0.08 | 0 | 0.04 | - | 0 | 0.02 | 0 | 0.053 | 0.051 | 0 |
| Molybdenum | 0.1 | - | 0.1 | 0 | 1 | 0.2 | - | 0 | 0.1 | 0 | 0.5 | 0.3 | 0 |
| Nickel | 0.62 | 0.33 | 0.34 | 0.11 | 0 | 0.59 | - | 0 | 0.74 | 0 | 0.48 | 0.21 | 0 |
| Selenium | 0.05 | - | 0.05 | - | 5 | 0.05 | - | 2 | 0.05 | 1 | 0.05 | - | 3 |
| Uranium | 0.01 | 0.004 | 0.01 | 0.009 | 4 | 0.02 | - | 1 | 0.01 | 1 | 0.01 | - | 3 |
| Vanadium | 0.1 | - | 0.1 | - | 5 | 0.1 | - | 2 | 0.1 | 1 | 0.1 | - | 3 |
| Zinc | 6.8 | 1.5 | 7.5 | 0.80 | 0 | 6.7 | - | 0 | 5.3 | 0 | 7.0 | 0.55 | 0 |
| Radionuclides | | | | | | | | | | | | | |
| Lead-210 (Bq/g) | 0.010 | 0.006 | 0.007 | 0.005 | 3 | 0.004 | - | 0 | 0.003 | 0 | 0.003 | 0.002 | 0 |
| Polonium-210 (Bq/g) | 0.0052 | 0.0045 | 0.0012 | 0.00045 | 1 | 0.0038 | - | 0 | 0.0027 | 0 | 0.0017 | 0.00060 | 0 |
| Radium-226 (Bq/g) | 0.002 | 0.003 | 0.002 | 0.0008 | 1 | 0.003 | - | 0 | 0.003 | 0 | 0.0008 | 0.0001 | 0 |
| Thorium-230 (Bq/g) | 0.002 | - | 0.002 | - | 5 | 0.001 | - | 2 | 0.001 | 1 | 0.001 | - | 3 |

¹All concentrations are in µg/g on a dry weight basis, unless specified otherwise.

²Regional reference data are from the AWG program (2000 to 2010) and the Uranium City Country Foods program (2011). Data are not available from all communities in all years. The median corresponds to the 50th percentile, while the lower and upper limits are the 2.5th and 97.5th percentiles that delimit the 95% range of the reference data.

³Regional reference ranges could not be computed when all or nearly all values were lower than the reported detection limit (RDL).

S.D. = Standard deviation; S.D. of 0 signify "no variance between samples"; "-" indicates insufficient data to calculate S.D.

<RDL = less than the laboratory reported detection limit.

Values less than the RDL were set equal to the RDL when calculating summary statistics.

Appendix A, Table 4

Summary barren-ground caribou flesh chemistry results for the EARMP community program.

| Chemical ¹ | Regional Reference Range ^{2,3} | | | |
|-----------------------|---|---------|-------------|----|
| | Lower Limit | Median | Upper Limit | n |
| Metals | | | | |
| Aluminum | 0.02 | 0.3 | 1.1 | 11 |
| Arsenic | 0.01 | 0.04 | 0.18 | 32 |
| Cadmium | 0.002 | 0.004 | 0.01 | 13 |
| Cobalt | 0.001 | 0.004 | 0.009 | 13 |
| Copper | 1.7 | 2.9 | 4.9 | 30 |
| Iron | 25 | 39 | 62 | 32 |
| Lead | 0.003 | 0.003 | 0.39 | 13 |
| Molybdenum | - | - | - | 32 |
| Nickel | 0.01 | 0.02 | 0.04 | 32 |
| Selenium | 0.06 | 0.28 | 0.69 | 32 |
| Uranium | 0.001 | 0.001 | 0.003 | 32 |
| Vanadium | - | - | - | 32 |
| Zinc | 9 | 29 | 55 | 32 |
| Radionuclides | | | | |
| Lead-210 (Bq/g) | 0.001 | 0.001 | 0.003 | 32 |
| Polonium-210 (Bq/g) | - | - | - | 0 |
| Radium-226 (Bq/g) | 0.00003 | 0.00006 | 0.00011 | 25 |
| Thorium-230 (Bq/g) | - | - | - | 0 |

Appendix A, Table 5

Summary barren-ground caribou flesh chemistry results for the EARMP community program.

| Chemical ¹ | Black Lake | | | | | | | | | | |
|-----------------------|----------------------|--------|----------------------|--------|-------|----------------------|---------|-------|-----------|----------|---------|
| | Baseline (n = 10) | | 2013/2014 (n = 5) | | | 2014/2015 (n = 5) | | | 2016/2017 | | |
| | Average | S.D. | Average | S.D. | < RDL | Average | S.D. | < RDL | 1 | 2 | Average |
| Metals | | | | | | | | | | | |
| Aluminum | 0.5 | 0 | 0.7 | 0.3 | 2 | 0.5 | - | 5 | <0.5 | <0.5 | 0.5 |
| Arsenic | 0.02 | 0.008 | 0.01 | 0 | 2 | 0.03 | 0.009 | 0 | 0.03 | 0.02 | 0.03 |
| Cadmium | 0.003 | 0.002 | 0.003 | 0.001 | 1 | 0.002 | - | 4 | 0.003 | 0.005 | 0.004 |
| Cobalt | 0.004 | 0.002 | 0.002 | 0 | 3 | 0.010 | 0.0038 | 3 | 0.004 | 0.006 | 0.01 |
| Copper | 3.3 | 0.54 | 3.6 | 0.96 | 0 | 4.1 | 1.0 | 0 | 2.5 | 2.6 | 2.6 |
| Iron | 41 | 6.6 | 47 | 9.1 | 0 | 43 | 8.5 | 0 | 35 | 33 | 34 |
| Lead | 0.084 | 0.17 | 0.12 | 0.25 | 1 | 0.008 | 0.004 | 1 | 0.043 | 0.006 | 0.025 |
| Molybdenum | 0.02 | - | 0.02 | - | 5 | 0.02 | - | 5 | <0.02 | <0.02 | 0.02 |
| Nickel | 0.01 | 0.005 | 0.01 | - | 5 | 0.02 | 0.02 | 5 | 0.01 | <0.01 | 0.01 |
| Selenium | 0.19 | 0.034 | 0.20 | 0.036 | 0 | 0.21 | 0.027 | 0 | 0.17 | 0.18 | 0.18 |
| Uranium | 0.001 | 0 | 0.001 | - | 5 | 0.001 | - | 5 | <0.001 | <0.001 | 0.001 |
| Vanadium | 0.02 | - | 0.02 | - | 5 | 0.02 | - | 5 | <0.02 | <0.02 | 0.02 |
| Zinc | 26 | 6.2 | 23 | 4.4 | 0 | 23 | 13.6 | 0 | 35 | 46 | 41 |
| Radionuclides | | | | | | | | | | | |
| Lead-210 (Bq/g) | 0.001 | 0 | 0.001 | - | 5 | 0.001 | - | 5 | <0.001 | <0.001 | 0.001 |
| Polonium-210 (Bq/g) | 0.0080 | 0.0032 | 0.015 | 0.0044 | 0 | 0.015 | 0.0023 | 0 | 0.0081 | 0.0063 | 0.007 |
| Radium-226 (Bq/g) | 0.003 | 0.003 | 0.0002 | 0.0001 | 2 | 0.0001 | 0.00007 | 2 | <0.00007 | <0.00005 | 0.00006 |
| Thorium-230 (Bq/g) | 0.0001 | - | 0.0001 | - | 5 | 0.0001 | 0.00005 | 5 | <0.0001 | <0.0001 | 0.0001 |

Appendix A, Table 5

Summary barren-ground caribou flesh chemistry results for the EARMP community program.

| Chemical ¹ | Fond du Lac | | | | | | | | | | | | |
|-----------------------|----------------------|---------|----------------------|----------|------|----------------------|---------|------|----------------------|------|-----------|----------|---------|
| | Baseline (n = 11) | | 2013/2014 (n = 5) | | | 2014/2015 (n = 3) | | | 2015/2016 (n = 2) | | 2016/2017 | | |
| | Average | S.D. | Average | S.D. | <RDL | Average | S.D. | <RDL | Average | <RDL | 1 | 2 | Average |
| Metals | | | | | | | | | | | | | |
| Aluminum | 0.5 | - | 0.5 | 0 | 4 | 0.5 | 0.06 | 2 | 0.5 | 2 | <0.5 | <0.5 | 0.5 |
| Arsenic | 0.01 | 0.005 | 0.01 | 0.009 | 4 | 0.01 | 0 | 1 | 0.01 | 0 | 0.03 | <0.01 | 0.02 |
| Cadmium | 0.02 | 0.04 | 0.003 | 0.001 | 1 | 0.005 | 0.002 | 0 | 0.01 | 0 | 0.004 | 0.004 | 0.004 |
| Cobalt | 0.005 | 0.003 | 0.004 | 0.001 | 1 | 0.005 | 0.001 | 0 | 0.005 | 0 | 0.005 | 0.003 | 0.004 |
| Copper | 3.2 | 0.84 | 3.9 | 0.71 | 0 | 2.7 | 0.80 | 0 | 2.8 | 0 | 2.4 | 3.4 | 2.9 |
| Iron | 39 | 8.0 | 43 | 9.2 | 0 | 40 | 6.4 | 0 | 42 | 0 | 34 | 61 | 48 |
| Lead | 0.005 | 0.004 | 0.002 | 0.0004 | 3 | 0.003 | 0.001 | 2 | 0.007 | 1 | 0.004 | 0.005 | 0.005 |
| Molybdenum | 0.02 | - | 0.02 | - | 5 | 0.02 | - | 3 | 0.02 | 2 | <0.02 | <0.02 | 0.02 |
| Nickel | 0.02 | 0.02 | 0.01 | - | 5 | 0.01 | 0 | 2 | 0.01 | 2 | <0.01 | <0.01 | 0.01 |
| Selenium | 0.17 | 0.060 | 0.19 | 0.021 | 0 | 0.17 | 0.015 | 0 | 0.16 | 0 | 0.15 | 0.20 | 0.18 |
| Uranium | 0.001 | 0.0004 | 0.001 | - | 5 | 0.001 | - | 3 | 0.001 | 2 | <0.001 | <0.001 | 0.001 |
| Vanadium | 0.02 | - | 0.02 | - | 5 | 0.02 | - | 3 | 0.02 | 2 | <0.02 | <0.02 | 0.02 |
| Zinc | 30 | 18 | 26 | 3.2 | 0 | 36 | 20 | 0 | 36 | 0 | 39 | 14 | 27 |
| Radionuclides | | | | | | | | | | | | | |
| Lead-210 (Bq/g) | 0.002 | 0.002 | 0.001 | - | 5 | 0.001 | - | 3 | 0.001 | 2 | <0.001 | <0.001 | 0.001 |
| Polonium-210 (Bq/g) | 0.012 | 0.0057 | 0.012 | 0.0015 | 0 | 0.0075 | 0.00045 | 0 | 0.0016 | 0 | 0.0071 | 0.012 | 0.0096 |
| Radium-226 (Bq/g) | 0.00008 | 0.00004 | 0.00007 | 0.000009 | 3 | 0.00007 | 0.00001 | 2 | 0.00008 | 0 | <0.00008 | <0.00009 | 0.00008 |
| Thorium-230 (Bq/g) | 0.0001 | 0.00007 | 0.0001 | - | 5 | 0.0001 | - | 3 | 0.0001 | 2 | <0.0002 | <0.0002 | 0.0002 |

Appendix A, Table 5

Summary barren-ground caribou flesh chemistry results for the EARMP community program.

| Chemical ¹ | Stony Rapids | | | | | | | |
|-----------------------|---------------------|--------|----------------------|--------|------|----------------------|---------|------|
| | Baseline (n = 8) | | 2013/2014 (n = 3) | | | 2014/2015 (n = 5) | | |
| | Average | S.D. | Average | S.D. | <RDL | Average | S.D. | <RDL |
| Metals | | | | | | | | |
| Aluminum | 0.6 | 0.31 | 0.5 | - | 3 | 0.5 | - | 5 |
| Arsenic | 0.01 | 0.004 | 0.02 | 0.01 | 0 | 0.02 | 0.006 | 0 |
| Cadmium | 0.003 | 0.0008 | 0.004 | 0.004 | 1 | 0.004 | 0.002 | 2 |
| Cobalt | 0.004 | 0.001 | 0.003 | 0.001 | 0 | 0.004 | 0.001 | 0 |
| Copper | 4.1 | 0.56 | 2.5 | 0.81 | 0 | 3.5 | 0.62 | 0 |
| Iron | 52 | 3.7 | 39 | 1.2 | 0 | 44 | 5.5 | 0 |
| Lead | 0.017 | 0.027 | 0.030 | 0.024 | 0 | 0.004 | 0.003 | 2 |
| Molybdenum | 0.02 | - | 0.020 | - | 3 | 0.02 | - | 4 |
| Nickel | 0.01 | 0 | 0.08 | 0.087 | 1 | 0.01 | - | 5 |
| Selenium | 0.22 | 0.022 | 0.14 | 0.025 | 0 | 0.19 | 0.017 | 0 |
| Uranium | 0.001 | 0.0004 | 0.001 | - | 3 | 0.001 | 0.0004 | 4 |
| Vanadium | 0.02 | - | <0.02 | - | 3 | 0.02 | - | 5 |
| Zinc | 19 | 6.5 | 35 | 16.1 | 0 | 22 | 9.8 | 0 |
| Radionuclides | | | | | | | | |
| Lead-210 (Bq/g) | 0.001 | 0.0004 | 0.001 | 0.0006 | 2 | 0.001 | - | 4 |
| Polonium-210 (Bq/g) | 0.013 | 0.0123 | 0.008 | 0.0021 | 0 | 0.022 | 0.0069 | 0 |
| Radium-226 (Bq/g) | 0.001 | 0.0005 | 0.00006 | - | 3 | 0.00008 | 0.00001 | 2 |
| Thorium-230 (Bq/g) | 0.002 | - | 0.0001 | - | 3 | 0.0002 | - | 5 |

Appendix A, Table 5

Summary barren-ground caribou flesh chemistry results for the EARMP community program.

| Chemical ¹ | Wollaston Lake/Hatchet Lake | | | | | | | | | | |
|-----------------------|-----------------------------|---------|----------------------|---------|------|----------------------|---------|------|-----------|----------|---------|
| | Baseline (n = 10) | | 2013/2014 (n = 5) | | | 2014/2015 (n = 4) | | | 2016/2017 | | |
| | Average | S.D. | Average | S.D. | <RDL | Average | S.D. | <RDL | 1 | 2 | Average |
| Metals | | | | | | | | | | | |
| Aluminum | 0.52 | 0.063 | 0.5 | 0.04 | 4 | 0.5 | - | 4 | <0.5 | <0.5 | 0.5 |
| Arsenic | 0.01 | 0.005 | 0.01 | 0.005 | 2 | 0.01 | 0.005 | 2 | 0.03 | 0.03 | 0.03 |
| Cadmium | 0.004 | 0.002 | 0.002 | 0.0004 | 0 | 0.010 | 0.012 | 0 | 0.004 | 0.004 | 0.004 |
| Cobalt | 0.005 | 0.002 | 0.004 | 0.002 | 1 | 0.009 | 0.006 | 0 | 0.003 | 0.004 | 0.004 |
| Copper | 3.2 | 0.68 | 3.3 | 0.59 | 0 | 3.2 | 0.48 | 0 | 3.0 | 3.6 | 3.3 |
| Iron | 41 | 11 | 39 | 9.2 | 0 | 39 | 11 | 0 | 45 | 38 | 42 |
| Lead | 0.015 | 0.018 | 0.003 | 0.001 | 3 | 0.28 | 0.55 | 3 | 0.52 | 0.014 | 0.27 |
| Molybdenum | 0.02 | - | 0.02 | - | 5 | 0.02 | - | 4 | <0.02 | <0.02 | 0.02 |
| Nickel | 0.01 | 0.003 | 0.01 | - | 5 | 0.01 | - | 4 | <0.01 | <0.01 | 0.01 |
| Selenium | 0.16 | 0.026 | 0.18 | 0.032 | 0 | 0.16 | 0.021 | 0 | 0.20 | 0.22 | 0.21 |
| Uranium | 0.001 | - | 0.001 | - | 5 | 0.001 | - | 4 | <0.001 | <0.001 | 0.001 |
| Vanadium | 0.02 | - | 0.02 | - | 5 | 0.02 | - | 4 | <0.02 | <0.02 | 0.02 |
| Zinc | 29 | 11.6 | 18 | 3.8 | 0 | 26 | 6.2 | 0 | 43 | 38 | 41 |
| Radionuclides | | | | | | | | | | | |
| Lead-210 (Bq/g) | 0.001 | 0.0003 | 0.001 | - | 5 | 0.001 | - | 4 | <0.001 | <0.001 | 0.001 |
| Polonium-210 (Bq/g) | 0.013 | 0.0029 | 0.011 | 0.0032 | 0 | 0.0063 | 0.0015 | 0 | 0.0075 | 0.0082 | 0.0079 |
| Radium-226 (Bq/g) | 0.00007 | 0.00001 | 0.0001 | 0.00006 | 3 | 0.00007 | 0.00002 | 3 | <0.00007 | <0.00007 | 0.00007 |
| Thorium-230 (Bq/g) | 0.0001 | - | 0.0001 | 0.00005 | 5 | 0.0001 | - | 4 | <0.0001 | <0.0001 | 0.0001 |

¹All concentrations are reported in µg/g wet weight basis, except when specified otherwise.

²Regional reference data are from the AWG program (2000 to 2010) and the Uranium City Country Foods program (2011). Data are not available from all communities in all years. The median corresponds to the 50th percentile, while the lower and upper limits are the 2.5th and 97.5th percentiles that delimit the 95% range of the reference data.

³Regional reference ranges could not be computed when all or nearly all values were lower than the reported detection limit (RDL).

<RDL = less than the laboratory reported detection limit.

Values less than the RDL were set equal to the RDL when calculating summary statistics.

Appendix A, Table 6

Summary moose flesh chemistry results for the EARMP community program.

| Chemical ¹ | Regional Reference Range ^{2,3} | | | |
|----------------------------------|---|---------|-------------|----|
| | Lower Limit | Median | Upper Limit | n |
| Metals and Trace Elements | | | | |
| Aluminum | 0.2 | 0.5 | 10.9 | 40 |
| Arsenic | 0.01 | 0.02 | 0.21 | 37 |
| Cadmium | 0.002 | 0.004 | 0.014 | 10 |
| Cobalt | 0.007 | 0.015 | 0.031 | 10 |
| Copper | 0.7 | 1.3 | 2.1 | 40 |
| Iron | 14 | 30 | 53 | 40 |
| Lead | 0.002 | 0.010 | 0.032 | 10 |
| Molybdenum | - | - | - | 40 |
| Nickel | 0.01 | 0.01 | 0.10 | 38 |
| Selenium | 0.05 | 0.23 | 0.53 | 37 |
| Uranium | 0.001 | 0.001 | 0.011 | 36 |
| Vanadium | - | - | - | 40 |
| Zinc | 19 | 48 | 79 | 40 |
| Radionuclides | | | | |
| Lead-210 (Bq/g) | 0.0001 | 0.0002 | 0.0013 | 35 |
| Polonium-210 (Bq/g) | - | - | - | 1 |
| Radium-226 (Bq/g) | 0.00005 | 0.00005 | 0.00009 | 35 |
| Thorium-230 (Bq/g) | - | - | - | 1 |

Appendix A, Table 7

Summary moose flesh chemistry results for the EARMP community program.

| Chemical ¹ | Camsell Portage | | | | | | | | Fond Du Lac | Stoney Rapids |
|-----------------------|---------------------|----------|----------------------|------|----------------------|------|----------------------|------|-----------------|-----------------|
| | Baseline (n = 4) | | 2013/2014 (n = 2) | | 2014/2015 (n = 2) | | 2015/2016 (n = 2) | | 2016 (n = 1) | 2016 (n = 1) |
| | Average | S.D. | Average | <RDL | Average | <RDL | Average | <RDL | | |
| Metals | | | | | | | | | | |
| Aluminum | 2.2 | 1.5 | 0.5 | 2 | 2.5 | 0 | 2.8 | 0 | 0.6 | 0.5 |
| Arsenic | 0.01 | - | 0.01 | 2 | 0.01 | 2 | 0.01 | 2 | <0.01 | 0.01 |
| Cadmium | 0.003 | 0.002 | 0.003 | 0 | 0.027 | 0 | 0.005 | 0 | 0.002 | 0.002 |
| Cobalt | 0.014 | 0.0054 | 0.014 | 0 | 0.018 | 0 | 0.011 | 0 | 0.011 | 0.019 |
| Copper | 1.7 | 0.34 | 1.7 | 0 | 1.0 | 0 | 1.2 | 0 | 1.5 | 1.7 |
| Iron | 25 | 3.3 | 32 | 0 | 27 | 0 | 29 | 0 | 38 | 29 |
| Lead | 0.010 | 0.010 | 0.003 | 1 | 0.020 | 0 | 0.003 | 0 | 0.01 | 0.01 |
| Molybdenum | 0.02 | - | 0.02 | 2 | 0.02 | 2 | 0.02 | 2 | <0.02 | <0.02 |
| Nickel | 0.02 | 0.006 | 0.01 | 2 | 0.01 | 2 | 0.02 | 1 | <0.01 | 0.02 |
| Selenium | 0.12 | 0.059 | 0.06 | 0 | 0.08 | 0 | 0.15 | 0 | 0.1 | 0.09 |
| Uranium | 0.001 | - | 0.001 | 2 | 0.002 | 1 | 0.002 | 1 | <0.001 | <0.001 |
| Vanadium | 0.02 | - | 0.02 | 2 | 0.02 | 2 | 0.02 | 2 | <0.02 | <0.02 |
| Zinc | 39 | 10 | 52 | 0 | 61 | 0 | 55 | 0 | 53 | 49 |
| Radionuclides | | | | | | | | | | |
| Lead-210 (Bq/g) | 0.0008 | - | 0.001 | 2 | 0.001 | 2 | 0.001 | 2 | <0.001 | <0.001 |
| Polonium-210 (Bq/g) | 0.0009 | 0.00090 | 0.0003 | 1 | 0.0003 | 1 | 0.0008 | 0 | 0.0003 | 0.0006 |
| Radium-226 (Bq/g) | 0.00010 | 0.000066 | 0.00007 | 0 | 0.00006 | 2 | 0.00007 | 0 | <0.00005 | <0.00007 |
| Thorium-230 (Bq/g) | 0.0001 | 0.00006 | 0.0001 | 2 | 0.0001 | 2 | 0.00010 | 2 | <0.0001 | <0.0001 |

Appendix A, Table 7

Summary moose flesh chemistry results for the EARMP community program.

| Chemical ¹ | Uranium City | | | | | | | |
|-----------------------|---------------------|---------|----------------------|---------|------|----------------------|----------------------|-----------------|
| | Baseline (n = 7) | | 2013/2014 (n = 3) | | | 2014/2015 (n = 1) | 2015/2016 (n = 1) | 2016 (n = 1) |
| | Average | S.D. | Average | S.D. | <RDL | | | |
| Metals | | | | | | | | |
| Aluminum | 0.8 | 0.76 | 0.5 | 0.1 | 2 | 0.6 | <0.5 | 0.5 |
| Arsenic | 0.01 | 0 | 0.01 | - | 3 | <0.01 | <0.01 | <0.01 |
| Cadmium | 0.005 | 0.0030 | 0.004 | 0.001 | 0 | 0.056 | 0.018 | 0.011 |
| Cobalt | 0.012 | 0.0047 | 0.010 | 0.0015 | 0 | 0.009 | 0.044 | 0.009 |
| Copper | 1.8 | 0.92 | 1.7 | 0.26 | 0 | 1.9 | 1.5 | 1.8 |
| Iron | 33 | 6.9 | 32 | 5.7 | 0 | 36 | 33 | 25 |
| Lead | 0.003 | 0.001 | 0.01 | 0.01 | 0 | 0.003 | 0.002 | 0.01 |
| Molybdenum | 0.02 | - | 0.02 | - | 3 | <0.02 | <0.02 | <0.02 |
| Nickel | 0.01 | 0.005 | 0.01 | - | 3 | <0.01 | <0.01 | 0.02 |
| Selenium | 0.12 | 0.034 | 0.10 | 0.021 | 0 | 0.14 | 0.08 | 0.13 |
| Uranium | 0.001 | 0.0008 | 0.001 | - | 3 | <0.001 | <0.001 | <0.001 |
| Vanadium | 0.02 | - | 0.02 | - | 3 | <0.02 | <0.02 | <0.02 |
| Zinc | 52 | 13 | 49 | 6.1 | 0 | 52 | 52 | 35 |
| Radionuclides | | | | | | | | |
| Lead-210 (Bq/g) | 0.0007 | 0.0007 | 0.001 | - | 3 | <0.001 | <0.001 | <0.001 |
| Polonium-210 (Bq/g) | 0.0006 | 0.0008 | 0.0004 | 0.0001 | 0 | 0.0016 | 0.001 | 0.0008 |
| Radium-226 (Bq/g) | 0.00007 | - | 0.00008 | 0.00003 | 1 | <0.00005 | 0.00006 | <0.00009 |
| Thorium-230 (Bq/g) | 0.0001 | 0.00005 | 0.0001 | - | 3 | <0.0001 | <0.0001 | <0.0002 |

¹All concentrations are reported on a µg/g wet weight basis, except when specified otherwise.

²Regional reference data are from the AWG program. Data used are from 2000 to 2010. However, data are not available from all communities in all years.

³Regional reference ranges could not be computed when all or nearly all values were lower than the reported detection limit (RDL).

S.D. = Standard deviation; S.D. of 0 signify "no variance between samples"; "-" indicates insufficient data to calculate S.D.

<RDL = less than the laboratory reported detection limit.

Values less than the RDL were set equal to the RDL when calculating summary statistics.

Appendix A, Table 8

Summary additional mammal chemistry results (snowshoe hare) collected from Uranium City and Camsell Portage, 2013/2014.

| Chemical ¹ | Camsell Portage | | | | | | Uranium City | | | | |
|-----------------------|-----------------------|----------|---|-----------|----------|---------|-----------------------|----------|---|-----------|----------|
| | Baseline ² | | | 2013/2014 | | | Baseline ² | | | 2013/2014 | |
| | Average | S.D. | N | 1 | 2 | 3 | Average | S.D | N | 1 | 2 |
| Metals | | | | | | | | | | | |
| Aluminum | 0.5 | 0.04 | 5 | <0.5 | <0.5 | <0.5 | 0.5 | 0.04 | 5 | <0.5 | 0.5 |
| Cadmium | 0.002 | - | 5 | <0.002 | 0.004 | 0.006 | 0.004 | 0.0033 | 5 | <0.002 | 0.0050 |
| Copper | 1.8 | 0.38 | 5 | 1.9 | 2.1 | 1.8 | 1.8 | 0.37 | 5 | 2.4 | 2.10 |
| Iron | 26 | 6.6 | 5 | 19 | 25 | 20 | 26 | 3.6 | 5 | 21 | 31.0 |
| Lead | 0.003 | 0.0005 | 5 | 0.003 | 0.002 | 0.002 | 0.003 | 0.0017 | 5 | 0.002 | <0.002 |
| Molybdenum | 0.02 | - | 5 | <0.02 | <0.02 | <0.02 | 0.02 | - | 5 | <0.02 | <0.02 |
| Nickel | 0.01 | 0 | 5 | <0.01 | <0.01 | 0.07 | 0.02 | 0.009 | 5 | 0.02 | 0.050 |
| Selenium | 0.06 | 0.012 | 5 | 0.03 | 0.08 | 0.14 | 0.06 | 0.044 | 5 | 0.15 | 0.070 |
| Uranium | 0.001 | - | 5 | <0.001 | <0.001 | <0.001 | 0.001 | - | 5 | <0.001 | <0.001 |
| Zinc | 13 | 3.2 | 5 | 13 | 11 | 16 | 15 | 4.7 | 5 | 10 | 16.0 |
| Radionuclides | | | | | | | | | | | |
| Lead-210 (Bq/g) | 0.001 | - | 5 | <0.001 | <0.001 | <0.001 | 0.001 | - | 5 | <0.001 | <0.001 |
| Polonium-210 (Bq/g) | 0.002 | 0.0007 | 5 | 0.002 | 0.002 | 0.002 | 0.002 | 0.0004 | 5 | 0.002 | 0.00150 |
| Radium-226 (Bq/g) | 0.00017 | 0.000097 | 5 | 0.00010 | <0.00006 | 0.00010 | 0.00011 | 0.000050 | 5 | 0.00010 | <0.00007 |
| Thorium-230 (Bq/g) | 0.0001 | - | 5 | <0.0001 | <0.0001 | <0.0001 | 0.0001 | - | 5 | <0.0002 | <0.0001 |
| Trace Elements | | | | | | | | | | | |
| Arsenic | 0.01 | - | 5 | <0.01 | <0.01 | <0.01 | 0.01 | - | 5 | 0.02 | <0.01 |
| Cobalt | 0.004 | 0.0008 | 5 | <0.002 | 0.005 | 0.032 | 0.006 | 0.0027 | 5 | 0.005 | 0.0040 |
| Vanadium | 0.02 | - | 5 | <0.02 | <0.02 | <0.02 | 0.02 | - | 5 | <0.02 | <0.02 |

¹All concentrations are reported in µg/g wet weight basis, except when specified otherwise.

²Baseline data for snowshoe hare were collected in 2011 as part of the Uranium City County Foods Program (CanNorth and SENES 2012). Values less than RDLs were set equal to RDLs for the calculation of average and standard deviations.

S.D. = Standard deviation; standard deviations of 0 signify "no variance between samples," not "a very small variance."

Appendix A, Table 9

Summary barren-ground caribou and moose organ chemistry results for the EARMP community program.

| Chemical ¹ | Caribou | | | | | | | | |
|-----------------------|------------------|-------------------|------|------------------|-------------------|------|------------------|------------------|------|
| | Black Lake | | | Fond du Lac | | | | Wollaston Lake | |
| | Heart (n = 1) | Kidney (n = 2) | | Heart (n = 1) | Kidney (n = 5) | | Liver (n = 1) | Liver (n = 3) | |
| | | Average | <RDL | | Average | <RDL | | Average | <RDL |
| Metals | | | | | | | | | |
| Aluminum | <0.5 | 0.6 | 1 | <0.5 | 0.5 | 5 | <0.5 | 0.6 | 1 |
| Arsenic | 0.01 | 0.02 | 0 | 0.01 | 0.01 | 2 | <0.01 | 0.02 | 0 |
| Cadmium | 0.004 | 5.8 | 0 | 0.002 | 8.0 | 0 | 0.004 | 1.2 | 0 |
| Cobalt | 0.014 | 0.049 | 0 | 0.02 | 0.036 | 0 | 0.013 | 0.088 | 0 |
| Copper | 4.5 | 4.3 | 0 | 4.5 | 4.2 | 0 | 3.3 | 40 | 0 |
| Iron | 55 | 31 | 0 | 59 | 46 | 0 | 37 | 165 | 0 |
| Lead | 0.005 | 0.056 | 0 | 0.01 | 0.086 | 0 | 0.003 | 0.087 | 0 |
| Molybdenum | <0.02 | 0.18 | 0 | <0.02 | 0.13 | 0 | <0.02 | 0.87 | 0 |
| Nickel | <0.01 | 0.02 | 1 | 0.01 | 0.01 | 3 | 0.02 | 0.01 | 2 |
| Selenium | 0.27 | 0.97 | 0 | 0.26 | 1.3 | 0 | 0.18 | 0.40 | 0 |
| Uranium | <0.001 | 0.001 | 2 | <0.001 | 0.001 | 5 | <0.001 | 0.004 | 3 |
| Vanadium | <0.02 | 0.02 | 2 | <0.02 | 0.02 | 5 | <0.02 | 0.02 | 3 |
| Zinc | 19 | 24 | 0 | 20 | 26 | 0 | 37 | 30 | 0 |
| Radionuclides | | | | | | | | | |
| Lead-210 (Bq/g) | <0.001 | 0.036 | 0 | <0.001 | 0.064 | 0 | <0.001 | 0.029 | 1 |
| Polonium-210 (Bq/g) | 0.012 | 0.070 | 0 | 0.0092 | 0.081 | 0 | 0.0088 | 0.12 | 0 |
| Radium-226 (Bq/g) | <0.00006 | 0.0003 | 1 | <0.00007 | 0.0005 | 0 | <0.00006 | 0.0001 | 2 |
| Thorium-230 (Bq/g) | <0.0001 | 0.0003 | 2 | <0.0001 | 0.0004 | 4 | <0.0001 | 0.0002 | 3 |

¹All concentrations are presented on a µg/g wet weight basis, unless specified otherwise.

<RDL = less than the laboratory reported detection limit.

Values less than the RDL were set equal to the RDL when calculating summary statistics.

Appendix A, Table 9

Summary barren-ground caribou and moose organ chemistry results for the EARMP community program.

| Chemical ¹ | Moose | | | | | | | | |
|-----------------------|------------------|------|-------------------|------|-------------------|------------------|------|-------------------|------|
| | Camsell Portage | | | | Stony Rapids | Uranium City | | | |
| | Liver (n = 3) | | Kidney (n = 4) | | Kidney (n = 1) | Liver (n = 3) | | Kidney (n = 3) | |
| | Average | <RDL | Average | <RDL | | Average | <RDL | Average | <RDL |
| Metals | | | | | | | | | |
| Aluminum | 0.7 | 1 | 0.7 | 3 | <0.5 | 0.8 | 2 | 0.5 | 3 |
| Arsenic | 0.01 | 3 | 0.01 | 4 | 0.01 | 0.01 | 2 | 0.01 | 2 |
| Cadmium | 1.2 | 0 | 6.7 | 0 | 0.73 | 0.64 | 0 | 12.2 | 0 |
| Cobalt | 0.21 | 0 | 0.14 | 0 | 0.29 | 0.067 | 0 | 0.15 | 0 |
| Copper | 33 | 0 | 3.1 | 0 | 13.2 | 18.9 | 0 | 2.7 | 0 |
| Iron | 137 | 0 | 61 | 0 | 200 | 313 | 0 | 35 | 0 |
| Lead | 0.003 | 1 | 0.003 | 2 | 0.004 | 0.009 | 1 | 0.005 | 1 |
| Molybdenum | 1.0 | 0 | 0.33 | 0 | 1.1 | 0.49 | 1 | 0.20 | 0 |
| Nickel | 0.01 | 3 | 0.05 | 0 | 0.02 | 0.01 | 3 | 0.05 | 0 |
| Selenium | 0.45 | 0 | 0.87 | 0 | 0.24 | 0.30 | 0 | 0.69 | 0 |
| Uranium | 0.007 | 3 | 0.001 | 4 | <0.001 | 0.004 | 3 | 0.001 | 3 |
| Vanadium | 0.02 | 3 | 0.02 | 4 | <0.02 | 0.02 | 3 | 0.02 | 3 |
| Zinc | 18 | 0 | 21 | 0 | 27 | 17 | 0 | 24 | 0 |
| Radionuclides | | | | | | | | | |
| Lead-210 (Bq/g) | 0.001 | 2 | 0.002 | 2 | 0.001 | 0.001 | 1 | 0.001 | 0 |
| Polonium-210 (Bq/g) | 0.01 | 0 | 0.01 | 0 | 0.0042 | 0.0032 | 0 | 0.0044 | 0 |
| Radium-226 (Bq/g) | 0.0001 | 1 | 0.0002 | 1 | <0.00008 | 0.0002 | 0 | 0.0001 | 2 |
| Thorium-230 (Bq/g) | 0.0002 | 3 | 0.0002 | 4 | <0.0002 | 0.0001 | 3 | 0.0001 | 3 |

¹All concentrations are presented on a µg/g wet weight basis, unless specified otherwise.

<RDL = less than the laboratory reported detection limit.

Values less than the RDL were set equal to the RDL when calculating summary statistics.

APPENDIX B

RAW DATA

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- Appendix B, Table 4 Detailed barren-ground caribou flesh chemistry results for the EARMP community program, 2012 to 2017.
- Appendix B, Table 5 Detailed moose flesh chemistry results for the EARMP community program, 2011 to 2016.
- Appendix B, Table 6 Detailed snowshoe hare flesh chemistry results for the EARMP community program, 2011 to 2014.
- Appendix B, Table 7 Detailed moose and caribou liver and kidney chemistry results from the EARMP community program, 2014 to 2017.

Appendix B, Table 1

Detailed fish flesh chemistry data for the EARMP community program, 2011 to 2016.

| Chemical ¹ | Black Lake (Black Lake) | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|-------------------------|----------|----------|----------|----------|----------|---------|----------|----------|----------|----------|---------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| | Lake Trout | | | | | | | | | | | | | | | | | | | | | | |
| | 2011 | | | | | 2012 | | | | | 2013 | | | | | 2014 | | | | | 2016 | | |
| | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 |
| LT01 | LT02 | LT03 | LT04 | LT05 | LT01 | LT02 | LT03 | LT04 | LT05 | LT01 | LT02 | LT03 | LT04 | LT05 | LT01 | LT02 | LT03 | LT04 | LT05 | LT01 | LT02 | LT03 | |
| Metals and Trace Elements | | | | | | | | | | | | | | | | | | | | | | | |
| Aluminum | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | 0.7 | <0.5 | <0.5 | <0.5 | 0.7 | <0.5 | 0.6 |
| Antimony | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| Arsenic | 0.05 | 0.06 | 0.07 | 0.05 | 0.10 | 0.06 | 0.14 | 0.07 | 0.06 | 0.06 | 0.05 | 0.04 | 0.04 | 0.05 | 0.06 | 0.07 | 0.1 | 0.04 | 0.04 | 0.07 | 0.1 | 0.07 | 0.07 |
| Barium | 0.02 | 0.03 | 0.01 | <0.01 | 0.03 | <0.01 | 0.01 | 0.01 | 0.02 | 0.01 | 0.01 | <0.01 | <0.01 | 0.01 | 0.02 | 0.01 | 0.03 | 0.01 | <0.01 | <0.01 | 0.04 | 0.16 | 0.18 |
| Beryllium | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 |
| Boron | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 |
| Cadmium | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 |
| Chromium | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Cobalt | <0.002 | <0.002 | <0.002 | 0.002 | 0.002 | <0.002 | <0.002 | <0.002 | 0.003 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | 0.005 | 0.003 | 0.002 | 0.006 | <0.002 | 0.003 | 0.004 | <0.002 |
| Copper | 0.27 | 0.41 | 0.31 | 0.22 | 1 | 0.31 | 0.31 | 0.43 | 0.18 | 0.25 | 0.22 | 0.24 | 0.26 | 0.25 | 0.23 | 0.42 | 0.35 | 0.19 | 0.45 | 0.23 | 0.29 | 0.24 | 0.21 |
| Iron | 1.9 | 3.3 | 2 | 4.5 | 6 | 2.2 | 2 | 2.6 | 1.5 | 2.9 | 1.7 | 2 | 2 | 1.6 | 1.5 | 3.9 | 3.3 | 1.4 | 2.8 | 1.8 | 3.6 | 2.8 | 2.4 |
| Lead | <0.002 | 0.004 | <0.002 | <0.002 | <0.002 | 0.002 | <0.002 | 0.002 | <0.002 | 0.004 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | 0.002 | 0.007 | <0.002 | <0.002 | <0.002 | 0.003 | 0.004 | 0.005 |
| Manganese | 0.06 | 0.08 | 0.08 | 0.08 | 0.09 | 0.08 | 0.06 | 0.05 | 0.07 | 0.1 | 0.08 | 0.06 | 0.09 | 0.09 | 0.06 | 0.1 | 0.12 | 0.07 | 0.08 | 0.09 | 0.12 | 0.14 | 0.08 |
| Mercury | 0.45 | 0.41 | 0.37 | 0.33 | 0.37 | 0.16 | 0.16 | 0.18 | 0.36 | 0.35 | 0.42 | 0.5 | 0.45 | 0.37 | 0.28 | 0.37 | 0.53 | 0.37 | 0.45 | 0.5 | 0.4 | 0.31 | 0.35 |
| Molybdenum | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| Nickel | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | 0.01 | 0.04 | 0.01 | <0.01 | <0.01 | 0.02 | 0.01 | <0.01 |
| Selenium | 0.11 | 0.15 | 0.15 | 0.11 | 0.13 | 0.15 | 0.18 | 0.17 | 0.18 | 0.16 | 0.13 | 0.11 | 0.13 | 0.17 | 0.16 | 0.18 | 0.14 | 0.13 | 0.15 | 0.16 | 0.15 | 0.16 | 0.15 |
| Silver | <0.002 | <0.002 | <0.002 | <0.002 | 0.005 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 |
| Strontium | 0.10 | 0.07 | 0.09 | 0.05 | 0.13 | 0.07 | 0.21 | 0.27 | 0.2 | 0.8 | 0.05 | 0.03 | 0.23 | 0.27 | 0.07 | 0.15 | 0.12 | 0.08 | 0.3 | 0.06 | 0.19 | 0.68 | 0.1 |
| Thallium | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Tin | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Titanium | 0.08 | 0.09 | 0.08 | 0.07 | 0.08 | 0.07 | 0.07 | 0.08 | 0.07 | 0.08 | 0.01 | 0.01 | 0.01 | 0.02 | 0.01 | 0.09 | 0.09 | 0.08 | 0.07 | 0.08 | 0.01 | 0.03 | 0.01 |
| Uranium | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | 0.002 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | 0.001 | 0.001 | 0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| Vanadium | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| Zinc | 2.9 | 4.7 | 2.5 | 2.2 | 5.9 | 3.6 | 4.7 | 4.4 | 3.6 | 6.3 | 3 | 3.2 | 4.1 | 3.5 | 3.3 | 5.5 | 4.1 | 2.5 | 4 | 2.5 | 5.8 | 4.2 | 3.7 |
| Physical Properties | | | | | | | | | | | | | | | | | | | | | | | |
| Moisture (%) | 77.19 | 77.72 | 73.93 | 76.78 | 77.42 | 73.79 | 71.07 | 77.81 | 77.02 | 76.28 | 75.03 | 76.5 | 74.42 | 74.85 | 72.4 | 73.77 | 75.34 | 76.29 | 75.02 | 73.38 | 76.61 | 69.74 | 66.98 |
| Length (cm) | 44.9 | 51.2 | 48.7 | 48.3 | 50.5 | 51.3 | 52.7 | 51.2 | 62.5 | 65.2 | 54.0 | 56.0 | 53.2 | 54.8 | 49.6 | 52.6 | 53.2 | 53.5 | 50.5 | 54 | 48 | 52.4 | 50.5 |
| Weight (g) | 1730 | 1710 | 1480 | 1450 | 1740 | 1360 | 1740 | 1180 | 2060 | 2410 | 1940 | 2200 | 1720 | 1880 | 1760 | 1920 | 2240 | 1965 | 1900 | 2190 | 1580 | 1920 | 1580 |
| Sex | F | M | M | F | M | F | M | M | F | M | F | F | M | M | M | M | F | F | M | M | M | M | M |
| Maturity | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A |
| Age (years) | 12 | 10 | 7 | 10 | 10 | 7 | 7 | 6 | 27 | 19 | 12 | 17 | 13 | 13 | 13 | 14 | 14 | 9 | 14 | 14 | 15 | 14 | 16 |
| Radionuclides | | | | | | | | | | | | | | | | | | | | | | | |
| Lead-210 (Bq/g) | 0.002 | <0.001 | 0.002 | 0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | 0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| Polonium-210 (Bq/g) | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | 0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 |
| Radium-226 (Bq/g) | <0.00004 | <0.00006 | <0.00007 | <0.00005 | <0.00006 | <0.00006 | <0.0001 | <0.00005 | 0.00005 | <0.00006 | <0.00006 | 0.0001 | <0.00008 | <0.00006 | <0.00006 | <0.00006 | <0.00004 | <0.00005 | <0.00003 | <0.00005 | <0.00006 | <0.00006 | <0.00007 |
| Thorium-230 (Bq/g) | <0.00009 | <0.0001 | 0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0002 | <0.0001 | <0.00009 | <0.0001 | <0.0001 | <0.0001 | <0.0002 | <0.0001 | <0.0001 | <0.0001 | <0.00007 | <0.0001 | <0.00007 | <0.0001 | <0.0001 | <0.0001 | <0.0001 |

¹All concentrations are presented on a µg/g wet weight basis, unless specified otherwise.
GN = gill net; LT = lake trout; LW = lake whitefish; M = male; F = female; A = adult.

Appendix B, Table 1

Detailed fish flesh chemistry data for the EARMP community program, 2011 to 2016.

| Chemical | Black Lake (Black Lake) | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|-------------------------|----------|---------|----------|----------|----------|----------|--------|--------|----------|---------|----------|--------|----------|----------|----------|----------|----------|----------|---------|----------|----------|----------|
| | Lake Whitefish | | | | | | | | | | | | | | | | | | | | | | |
| | 2011 | | | | | 2012 | | | | | 2013 | | | | | 2014 | | | | | 2016 | | |
| | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 |
| LW06 | LW07 | LW08 | LW09 | LW10 | LW06 | LW07 | LW08 | LW09 | LW10 | LW06 | LW07 | LW08 | LW09 | LW10 | LW06 | LW07 | LW08 | LW09 | LW10 | LW01 | LW02 | LW03 | |
| Metals and Trace Elements | | | | | | | | | | | | | | | | | | | | | | | |
| Aluminum | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| Antimony | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| Arsenic | 0.25 | 0.27 | 0.40 | 0.14 | 0.37 | 0.04 | 0.05 | 0.08 | 0.14 | 0.04 | 0.01 | 0.03 | 0.03 | 0.03 | 0.02 | 0.2 | 0.16 | 0.2 | 0.07 | 0.2 | 0.04 | 0.38 | 0.24 |
| Barium | 0.06 | 0.13 | 0.09 | <0.01 | 0.02 | 0.02 | 0.01 | 0.02 | <0.01 | 0.02 | 0.02 | 0.02 | 0.02 | 0.01 | 0.01 | <0.01 | 0.02 | <0.01 | <0.01 | 0.02 | 0.06 | 0.06 | 0.01 |
| Beryllium | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 |
| Boron | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 |
| Cadmium | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 |
| Chromium | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Cobalt | 0.003 | 0.005 | <0.002 | 0.003 | 0.003 | <0.002 | 0.002 | <0.002 | <0.002 | 0.003 | <0.002 | 0.002 | <0.002 | 0.005 | 0.002 | <0.002 | <0.002 | 0.005 | 0.003 | 0.009 | 0.006 | 0.002 | 0.002 |
| Copper | 0.24 | 0.21 | 0.12 | 0.17 | 0.14 | 0.16 | 0.19 | 0.25 | 0.28 | 0.18 | 0.06 | 0.27 | 0.09 | 0.08 | 0.07 | 0.14 | 0.12 | 0.58 | 0.27 | 0.21 | 0.1 | 0.17 | 0.15 |
| Iron | 2.3 | 2.9 | 2.5 | 1.4 | 1.5 | 1 | 2 | 2.7 | 4 | 1.1 | 1.8 | 2.5 | 1.2 | 1.1 | 1.1 | 1.1 | 1.3 | 4 | 2.8 | 2.4 | 2.4 | 4 | 2.6 |
| Lead | <0.002 | 0.002 | <0.002 | <0.002 | <0.002 | 0.002 | <0.002 | 0.003 | <0.002 | 0.003 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | 0.003 | 0.002 | 0.004 | 0.002 |
| Manganese | 0.18 | 0.39 | 0.22 | 0.06 | 0.09 | 0.06 | 0.07 | 0.11 | 0.06 | 0.06 | 0.08 | 0.07 | 0.07 | 0.05 | 0.04 | 0.08 | 0.11 | 0.09 | 0.09 | 0.1 | 0.1 | 0.17 | 0.13 |
| Mercury | 0.16 | 0.13 | 0.14 | 0.06 | 0.21 | 0.13 | 0.16 | 0.15 | 0.02 | 0.05 | 0.05 | 0.09 | 0.03 | 0.04 | 0.08 | 0.097 | 0.13 | 0.068 | 0.1 | 0.12 | 0.061 | 0.12 | 0.088 |
| Molybdenum | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| Nickel | <0.01 | 0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | 0.02 | 0.02 | <0.01 | 0.02 |
| Selenium | 0.30 | 0.35 | 0.25 | 0.36 | 0.31 | 0.28 | 0.24 | 0.26 | 0.15 | 0.2 | 0.2 | 0.23 | 0.3 | 0.18 | 0.19 | 0.27 | 0.34 | 0.29 | 0.25 | 0.36 | 0.32 | 0.44 | 0.43 |
| Silver | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 |
| Strontium | 0.79 | 0.24 | 1.20 | 0.28 | 0.22 | 0.27 | 0.31 | 0.25 | 0.16 | 0.17 | 0.55 | 0.45 | 0.47 | 0.47 | 0.42 | 0.27 | 0.49 | 0.25 | 0.21 | 0.28 | 0.69 | 0.15 | 0.31 |
| Thallium | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Tin | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Titanium | 0.08 | 0.09 | 0.08 | 0.08 | 0.08 | 0.07 | 0.08 | 0.09 | 0.08 | 0.08 | 0.02 | 0.01 | 0.02 | 0.01 | <0.01 | 0.07 | 0.08 | 0.07 | 0.09 | 0.08 | 0.02 | <0.01 | 0.01 |
| Uranium | 0.002 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| Vanadium | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| Zinc | 3.9 | 4.6 | 3.5 | 4.7 | 3.3 | 6.7 | 6.2 | 4.6 | 4.4 | 4.4 | 3.4 | 4.7 | 4 | 3.5 | 4 | 3.6 | 3.1 | 4.9 | 3.5 | 3.7 | 4.8 | 4.2 | 4.8 |
| Physical Properties | | | | | | | | | | | | | | | | | | | | | | | |
| Moisture (%) | 75.22 | 76.01 | 76.93 | 75.27 | 75.79 | 74.3 | 72.89 | 75.74 | 78.39 | 76.9 | 79.98 | 78.5 | 79.92 | 79.2 | 78.64 | 75.64 | 76.94 | 77.68 | 75.67 | 75.1 | 75.55 | 80.28 | 76.47 |
| Length (cm) | 38.3 | 41.8 | 45.5 | 48.0 | 45.2 | 46.0 | 45.7 | 45.5 | 40.2 | 46.2 | 43.9 | 41.5 | 38 | 43.2 | 45.6 | 39.5 | 42.4 | 38 | 41 | 40.7 | 50.6 | 47.1 | 39.9 |
| Weight (g) | 840 | 1060 | 1360 | 890 | 1450 | 980 | 1020 | 920 | 760 | 1140 | 1200 | 920 | 660 | 1100 | 1320 | 950 | 1060 | 805 | 895 | 950 | 1580 | 1280 | 940 |
| Sex | F | M | M | F | F | M | M | M | M | F | M | M | F | F | F | F | F | M | M | M | F | F | M |
| Maturity | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A |
| Age (years) | 21 | 21 | 26 | 10 | 27 | 9 | 15 | 15 | 7 | 10 | 12 | 10 | 10 | 11 | 15 | 15 | 16 | 10 | 14 | 15 | 16 | 27 | 16 |
| Radionuclides | | | | | | | | | | | | | | | | | | | | | | | |
| Lead-210 (Bq/g) | <0.001 | <0.001 | <0.001 | <0.001 | 0.001 | <0.001 | <0.001 | <0.004 | <0.004 | <0.001 | 0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| Polonium-210 (Bq/g) | 0.0002 | <0.0002 | 0.0005 | 0.0007 | <0.0002 | <0.0002 | <0.0002 | <0.001 | <0.001 | <0.0002 | 0.0004 | 0.0006 | 0.0003 | 0.0003 | 0.0002 | 0.0003 | <0.0002 | 0.0003 | <0.0002 | 0.0002 | 0.0004 | 0.0004 | 0.0006 |
| Radium-226 (Bq/g) | <0.00006 | <0.00006 | 0.00009 | <0.00007 | <0.00006 | <0.00006 | <0.00006 | 0.001 | 0.002 | <0.00006 | 0.0002 | <0.00007 | 0.0004 | <0.00006 | <0.00006 | <0.00006 | <0.00006 | <0.00006 | <0.00005 | 0.0002 | <0.00006 | <0.00005 | <0.00006 |
| Thorium-230 (Bq/g) | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | 0.0001 | <0.002 | <0.002 | <0.0001 | <0.0001 | <0.0001 | 0.0002 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 |

¹All concentrations are presented on a µg/g wet weight basis, unless specified otherwise.

GN = gill net; LT = lake trout; LW = lake whitefish; M = male; F = female; A = adult.

Appendix B, Table 1

Detailed fish flesh chemistry data for the EARMP community program, 2012 and 2016.

| Chemical ¹ | Uranium City (Prospectors Bay) ² | | | | | | | | | | | | | | | | | | |
|----------------------------------|---|----------|----------|----------|---------|----------|---------|----------|---------|----------|----------|----------|---------|----------|----------|----------|----------|----------|-------|
| | Lake Trout | | | | | | | | | | | | | | | | | | |
| | 2012 | | | | | 2013 | | | | | 2014 | | | | | 2016 | | | |
| | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | AN1-1 | AN1-1 | AN1-1 |
| | LT01 | LT02 | LT03 | LT04 | LT05 | LT01 | LT02 | LT03 | LT04 | LT05 | LT01 | LT02 | LT03 | LT04 | LT05 | LT01 | LT02 | LT03 | |
| Metals and Trace Elements | | | | | | | | | | | | | | | | | | | |
| Aluminum | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | 0.6 | 0.5 | 0.7 | |
| Antimony | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | |
| Arsenic | 0.07 | 0.07 | 0.08 | 0.07 | 0.13 | 0.07 | 0.04 | 0.04 | 0.07 | | 0.06 | 0.04 | 0.07 | 0.05 | 0.2 | 0.09 | 0.08 | 0.19 | |
| Barium | 0.01 | 0.03 | 0.02 | 0.02 | 0.03 | <0.01 | <0.01 | <0.01 | 0.04 | 0.01 | 0.03 | 0.06 | 0.02 | 0.03 | 0.04 | 0.01 | 0.04 | 0.03 | |
| Beryllium | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | |
| Boron | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | |
| Cadmium | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | |
| Chromium | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | |
| Cobalt | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | 0.002 | <0.002 | <0.002 | 0.002 | 0.002 | <0.002 | <0.002 | 0.004 | |
| Copper | 0.27 | 0.21 | 0.21 | 0.26 | 0.26 | 0.18 | 0.19 | 0.22 | 0.28 | 0.25 | 0.29 | 0.27 | 0.3 | 0.25 | 0.32 | 0.25 | 0.2 | 0.63 | |
| Iron | 2.2 | 4.5 | 2.0 | 3.3 | 1.9 | 1.2 | 1.6 | 2.7 | 7.5 | 1.9 | 2.1 | 2.1 | 2.7 | 3.6 | 2.8 | 2.4 | 1.4 | 6.4 | |
| Lead | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | 0.003 | 0.004 | 0.002 | 0.006 | 0.003 | 0.003 | <0.002 | <0.002 | <0.002 | <0.002 | 0.002 | <0.002 | |
| Manganese | 0.08 | 0.07 | 0.05 | 0.05 | 0.05 | 0.07 | 0.06 | 0.07 | 0.12 | 0.08 | 0.08 | 0.08 | 0.08 | 0.07 | 0.06 | 0.05 | 0.08 | 0.11 | |
| Mercury | 0.17 | 0.24 | 0.23 | 0.21 | 0.13 | 0.13 | 0.15 | 0.23 | 0.09 | 0.1 | 0.16 | 0.11 | 0.14 | 0.29 | 0.16 | 0.12 | 0.14 | 0.18 | |
| Molybdenum | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | |
| Nickel | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | 0.02 | <0.01 | <0.01 | <0.01 | 0.01 | 0.02 | <0.01 | <0.01 | <0.01 | <0.01 | |
| Selenium | 0.18 | 0.17 | 0.17 | 0.18 | 0.17 | 0.15 | 0.14 | 0.18 | 0.15 | 0.13 | 0.15 | 0.15 | 0.14 | 0.15 | 0.14 | 0.11 | 0.16 | 0.18 | |
| Silver | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | |
| Strontium | 0.17 | 0.11 | 0.13 | 0.25 | 0.32 | 0.05 | 0.04 | 0.07 | 0.18 | 0.16 | 0.15 | 0.12 | 0.26 | 0.08 | 0.16 | 0.3 | 0.08 | 0.14 | |
| Thallium | <0.01 | 0.01 | <0.01 | <0.01 | <0.01 | <0.01 | 0.01 | 0.01 | <0.01 | <0.01 | <0.01 | 0.01 | <0.01 | 0.01 | <0.01 | <0.01 | 0.01 | 0.01 | |
| Tin | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | |
| Titanium | 0.07 | 0.07 | 0.07 | 0.07 | 0.06 | 0.04 | 0.02 | 0.03 | 0.03 | 0.03 | 0.08 | 0.08 | 0.1 | 0.08 | 0.07 | <0.01 | <0.01 | 0.02 | |
| Uranium | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | 0.006 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | |
| Vanadium | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | |
| Zinc | 4.3 | 4.0 | 3.7 | 5.4 | 4.1 | 2.7 | 2.7 | 3.1 | 3.8 | 2.7 | 7.2 | 3.4 | 3.6 | 3.2 | 6.8 | 3.2 | 3.2 | 6.1 | |
| Physical Properties | | | | | | | | | | | | | | | | | | | |
| Moisture (%) | 74.73 | 78.66 | 78.14 | 75.87 | 76.3 | 76.09 | 74.75 | 77.52 | 77.24 | 77.69 | 74.48 | 72.13 | 75.17 | 78.5 | 73.75 | 70.91 | 72.53 | 72.2 | |
| Length (cm) | 55.6 | 60.2 | 59.1 | 61.8 | 63.4 | 46.8 | 50.1 | 52.3 | 51.5 | 54.2 | 54.9 | 52 | 52.1 | 56.7 | 55.1 | 59.6 | 50.7 | 54.7 | |
| Weight (g) | 1380 | 1700 | 1520 | 1840 | 2140 | 1500 | 1580 | 1580 | 1540 | 1900 | 1940 | 1710 | 1605 | 2305 | 2010 | 2840 | 1760 | 2140 | |
| Sex | M | M | M | M | M | F | M | F | M | F | F | M | M | F | M | F | M | M | |
| Maturity | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | |
| Age (years) | 12 | 24 | 25 | 19 | 11 | 12 | 11 | 21 | 13 | 12 | 13 | 12 | 13 | 13 | 22 | 15 | 16 | 21 | |
| Radionuclides | | | | | | | | | | | | | | | | | | | |
| Lead-210 (Bq/g) | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | |
| Polonium-210 (Bq/g) | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | 0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | |
| Radium-226 (Bq/g) | <0.00005 | <0.00006 | <0.00006 | <0.00006 | 0.00006 | <0.00006 | 0.0002 | <0.00006 | 0.00009 | <0.00006 | <0.00006 | <0.00006 | 0.00008 | <0.00005 | <0.00006 | <0.00006 | <0.00006 | <0.00006 | |
| Thorium-230 (Bq/g) | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | 0.0002 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | |

¹All concentrations are presented on a µg/g wet weight basis, unless specified otherwise.

GN = gill net; LT = lake trout; LW = lake whitefish; M = male; F = female; A = adult.

Appendix B, Table 1

Detailed fish flesh chemistry data for the EARMP community program, 2012 and 2016.

| Chemical ¹ | Uranium City (Prospectors Bay) ² | | | | | | | | | | | | | | | |
|----------------------------------|---|----------|----------|----------|----------|---------|----------|----------|---------|----------|----------|----------|---------|----------|----------|----------|
| | Lake Whitefish | | | | | | | | | | | | | | | |
| | 2012 | | | | | 2013 | | | 2014 | | | | | 2016 | | |
| | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 |
| LW06 | LW07 | LW08 | LW09 | LW10 | LW01 | LW02 | LW03 | LW01 | LW02 | LW03 | LW04 | LW05 | LW01 | LW02 | LW03 | |
| Metals and Trace Elements | | | | | | | | | | | | | | | | |
| Aluminum | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | 0.6 | <0.5 | <0.5 | 0.5 | <0.5 |
| Antimony | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| Arsenic | 0.08 | 0.03 | 0.09 | 0.05 | 0.1 | 0.17 | 0.18 | 0.22 | 0.23 | 0.06 | 0.07 | 0.05 | 0.07 | 0.04 | 0.12 | 0.05 |
| Barium | 0.01 | 0.02 | 0.01 | 0.01 | 0.01 | 0.02 | <0.01 | 0.02 | 0.01 | 0.1 | 0.02 | 0.09 | 0.03 | 0.11 | 0.04 | 0.02 |
| Beryllium | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 |
| Boron | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 |
| Cadmium | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | 0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | 0.002 | <0.002 | <0.002 | <0.002 | <0.002 |
| Chromium | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Cobalt | <0.002 | 0.003 | 0.013 | 0.009 | <0.002 | 0.004 | 0.006 | 0.016 | 0.004 | 0.004 | 0.007 | 0.016 | 0.008 | 0.005 | 0.003 | 0.004 |
| Copper | 0.12 | 0.13 | 0.17 | 0.18 | 0.14 | 0.22 | 0.18 | 0.39 | 0.48 | 0.22 | 0.28 | 0.26 | 0.23 | 0.21 | 0.22 | 0.16 |
| Iron | 1.0 | 2.0 | 1.8 | 1.6 | 1.4 | 2.3 | 1.8 | 2.9 | 4.3 | 1.8 | 2 | 4.4 | 2.4 | 1.9 | 1.5 | 1.9 |
| Lead | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | 0.002 | <0.002 | 0.003 | <0.002 | 0.003 | <0.002 | 0.005 | 0.011 | 0.006 | <0.002 | <0.002 |
| Manganese | 0.07 | 0.06 | 0.07 | 0.07 | 0.12 | 0.1 | 0.06 | 0.11 | 0.09 | 0.12 | 0.12 | 0.1 | 0.08 | 0.09 | 0.1 | 0.09 |
| Mercury | 0.05 | 0.13 | 0.06 | 0.12 | 0.11 | 0.05 | 0.02 | 0.02 | 0.051 | 0.033 | 0.053 | 0.026 | 0.034 | 0.063 | 0.037 | 0.074 |
| Molybdenum | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| Nickel | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | 0.01 | 0.02 | 0.01 | 0.01 | 0.05 | 0.02 | <0.01 | <0.01 | <0.01 |
| Selenium | 0.28 | 0.22 | 0.23 | 0.32 | 0.26 | 0.26 | 0.24 | 0.26 | 0.24 | 0.27 | 0.23 | 0.19 | 0.26 | 0.28 | 0.3 | 0.23 |
| Silver | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 |
| Strontium | 0.22 | 0.19 | 0.4 | 0.4 | 0.25 | 0.25 | 0.23 | 0.25 | 0.26 | 1.8 | 0.29 | 0.65 | 0.31 | 0.21 | 0.48 | 0.31 |
| Thallium | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Tin | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | 0.02 | <0.01 | <0.01 | <0.01 | <0.01 |
| Titanium | 0.08 | 0.07 | 0.08 | 0.08 | 0.08 | 0.03 | 0.03 | 0.04 | 0.08 | 0.1 | 0.08 | 0.11 | 0.11 | <0.01 | <0.01 | <0.01 |
| Uranium | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | 0.003 | 0.002 | <0.001 | 0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| Vanadium | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| Zinc | 4.3 | 4.5 | 7.6 | 4.3 | 3.3 | 3.2 | 3.4 | 6.3 | 4 | 4.1 | 4.7 | 5.8 | 4.2 | 6.3 | 3.8 | 3.6 |
| Physical Properties | | | | | | | | | | | | | | | | |
| Moisture (%) | 79.31 | 78.4 | 75.72 | 73.83 | 76.89 | 79.25 | 76.91 | 72.22 | 74.04 | 74.06 | 76.04 | 75.15 | 76.82 | 68.43 | 76.07 | 73.75 |
| Length (cm) | 46.7 | 49.6 | 48.8 | 55.0 | 50.0 | 46.9 | 47 | 42.9 | 47.2 | 41.5 | 45.9 | 41.7 | 36.5 | 57.8 | 43.6 | 53.1 |
| Weight (g) | 640 | 980 | 1140 | 1520 | 1080 | 1480 | 1520 | 1300 | 1780 | 1090 | 1620 | 1310 | 750 | 3380 | 1280 | 2440 |
| Sex | M | M | F | F | F | M | M | F | M | F | M | F | M | M | M | F |
| Maturity | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A |
| Age (years) | 12 | 29 | 14 | 17 | 21 | 23 | 14 | 11 | 19 | 10 | 15 | 10 | 10 | 18 | 13 | 32 |
| Radionuclides | | | | | | | | | | | | | | | | |
| Lead-210 (Bq/g) | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| Polonium-210 (Bq/g) | <0.0002 | <0.0002 | 0.0006 | <0.0002 | <0.0002 | 0.0003 | <0.0002 | <0.0002 | 0.0006 | 0.0005 | 0.0004 | 0.0011 | 0.0007 | <0.0002 | 0.0003 | <0.0002 |
| Radium-226 (Bq/g) | <0.00006 | <0.00007 | <0.00005 | <0.00006 | <0.00008 | 0.00006 | <0.00006 | <0.00006 | 0.0001 | <0.00006 | <0.00006 | <0.00007 | 0.0001 | <0.00006 | <0.00006 | <0.00006 |
| Thorium-230 (Bq/g) | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0002 | <0.0001 | <0.0001 | <0.0001 | <0.0002 | <0.0001 | <0.0001 | <0.0001 | <0.0002 | <0.0001 | <0.0001 | <0.0001 |

¹All concentrations are presented on a µg/g wet weight basis, unless specified otherwise.

GN = gill net; LT = lake trout; LW = lake whitefish; M = male; F = female; A = adult.

Appendix B, Table 1

Detailed Camsell Portage (Ellis Bay) fish flesh chemistry data for the EARMF community program, 2011 to 2016.

| Chemical ¹ | Camsell Portage (Ellis Bay) | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|-----------------------------|----------|---------|---------|---------|----------|----------|----------|----------|----------|---------|----------|----------|----------|---------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| | Lake Trout | | | | | | | | | | | | | | | | | | | | | | | |
| | 2011 | | | | | 2012 | | | | | 2013 | | | | | 2014 | | | | | 2016 | | | |
| | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | AN1-1 | AN1-1 | AN1-1 | |
| LT01 | LT02 | LT03 | LT04 | LT05 | LT01 | LT02 | LT03 | LT04 | LT05 | LT01 | LT02 | LT03 | LT04 | LT05 | LT01 | LT02 | LT03 | LT04 | LT05 | LT01 | LT02 | LT03 | | |
| Metals and Trace Elements | | | | | | | | | | | | | | | | | | | | | | | | |
| Aluminum | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | 0.7 | <0.5 | <0.5 | <0.5 |
| Antimony | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| Arsenic | 0.12 | 0.08 | 0.12 | 0.08 | 0.12 | 0.06 | 0.14 | 0.04 | 0.06 | 0.29 | 0.07 | 0.12 | 0.11 | 0.05 | 0.03 | 0.06 | 0.07 | 0.13 | 0.11 | 0.06 | 0.11 | 0.07 | 0.12 | 0.12 |
| Barium | 0.04 | 0.01 | <0.01 | <0.01 | <0.01 | 0.05 | 0.08 | 0.02 | 0.04 | 0.02 | <0.01 | 0.01 | <0.01 | 0.22 | 0.04 | <0.01 | <0.01 | 0.04 | 0.02 | 0.02 | 0.02 | 0.03 | 0.04 | 0.04 |
| Beryllium | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 |
| Boron | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 |
| Cadmium | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 |
| Chromium | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Cobalt | 0.003 | 0.003 | <0.002 | <0.002 | 0.002 | <0.002 | <0.002 | <0.002 | 0.002 | <0.002 | 0.002 | <0.002 | <0.002 | <0.002 | <0.002 | 0.003 | <0.002 | 0.003 | <0.002 | 0.004 | 0.002 | <0.002 | 0.003 | 0.003 |
| Copper | 0.52 | 0.52 | 0.11 | 0.32 | 0.28 | 0.24 | 0.28 | 0.33 | 0.58 | 0.21 | 0.22 | 0.28 | 0.38 | 0.23 | 0.28 | 0.29 | 0.2 | 0.39 | 0.29 | 0.4 | 0.49 | 0.26 | 0.42 | 0.42 |
| Iron | 4.5 | 3.0 | 1.0 | 2.2 | 2.0 | 1.5 | 2.7 | 3.5 | 5.8 | 1.6 | 1.4 | 2.1 | 2.1 | 2.6 | 2.4 | 4.7 | 1.5 | 3 | 3.8 | 4 | 2.6 | 2.6 | 4.2 | 4.2 |
| Lead | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | 0.002 | <0.002 | 0.004 | <0.002 | 0.004 | 0.003 | 0.003 |
| Manganese | 0.1 | 0.09 | 0.09 | 0.07 | 0.08 | 0.06 | 0.09 | 0.6 | 0.08 | 0.06 | 0.09 | 0.06 | 0.08 | 0.08 | 0.09 | 0.08 | 0.06 | 0.07 | 0.08 | 0.07 | 0.07 | 0.13 | 0.07 | 0.07 |
| Mercury | 0.13 | 0.2 | 0.28 | 0.07 | 0.18 | 0.17 | 0.08 | 0.06 | 0.21 | 0.14 | 0.19 | 0.24 | 0.09 | 0.41 | 0.24 | 0.37 | 0.33 | 0.32 | 0.37 | 0.3 | 0.12 | 0.13 | 0.18 | 0.18 |
| Molybdenum | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| Nickel | 0.03 | <0.01 | <0.01 | <0.01 | 0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | 0.05 | <0.01 | <0.01 | 0.01 | <0.01 | 0.03 | <0.01 | 0.06 | <0.01 | <0.01 | 0.02 | 0.02 |
| Selenium | 0.14 | 0.18 | 0.15 | 0.16 | 0.18 | 0.15 | 0.16 | 0.15 | 0.18 | 0.1 | 0.17 | 0.14 | 0.16 | 0.17 | 0.18 | 0.17 | 0.15 | 0.19 | 0.21 | 0.17 | 0.21 | 0.17 | 0.2 | 0.2 |
| Silver | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 |
| Strontium | 0.3 | 0.19 | 0.26 | 0.2 | 0.15 | 0.06 | 0.13 | 0.07 | 0.68 | 0.65 | 0.1 | 0.09 | 0.21 | 0.09 | 0.12 | 0.12 | 0.08 | 0.15 | 0.31 | 0.14 | 0.18 | 0.43 | 0.26 | 0.26 |
| Thallium | <0.01 | 0.01 | <0.01 | <0.01 | <0.01 | 0.01 | <0.01 | <0.01 | <0.01 | <0.01 | 0.01 | 0.01 | 0.01 | 0.02 | 0.01 | 0.02 | 0.02 | 0.01 | 0.01 | 0.02 | 0.01 | 0.01 | 0.02 | 0.02 |
| Tin | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Titanium | 0.07 | 0.15 | 0.06 | 0.07 | 0.06 | 0.01 | 0.02 | 0.02 | 0.01 | <0.01 | 0.03 | 0.08 | 0.06 | 0.04 | 0.05 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | <0.01 | <0.01 | 0.01 | 0.01 |
| Uranium | 0.014 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | 0.001 | <0.001 | <0.001 | <0.001 | 0.001 | 0.001 |
| Vanadium | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| Zinc | 11 | 3.8 | 2.9 | 3.8 | 3.5 | 2.6 | 3.2 | 2.6 | 10 | 6.3 | 3 | 2.8 | 3.6 | 3.3 | 3.6 | 4 | 2.5 | 5 | 5.1 | 6.3 | 3.7 | 5.2 | 6.2 | 6.2 |
| Physical Properties | | | | | | | | | | | | | | | | | | | | | | | | |
| Moisture (%) | 73.73 | 71.7 | 74.1 | 70.34 | 67.36 | 73.93 | 76.07 | 75.33 | 76.29 | 72.6 | 69.45 | 68.65 | 72.36 | 78.67 | 79.54 | 78.57 | 74.76 | 75.37 | 77.41 | 77.04 | 71.70 | 72.13 | 74.82 | 74.82 |
| Length (cm) | 49.8 | 48.6 | 53.9 | 48.5 | 55.6 | 62.2 | 69.1 | 53.0 | 60.3 | 63.5 | 55.0 | 56.1 | 55.2 | 55.9 | 55.6 | 58.8 | 56.8 | 51.5 | 52.2 | 59.1 | 56.2 | 49.8 | 56.1 | 56.1 |
| Weight (g) | 1490 | 1480 | 1920 | 1420 | 2480 | 3640 | 2920 | 1420 | 1760 | 2560 | 2200 | 1920 | 1720 | 1920 | 1740 | 2245 | 2200 | 1750 | 1450 | 2360 | 2120 | 1660 | 1960 | 1960 |
| Sex | M | M | F | F | F | F | M | M | M | F | M | F | M | M | M | M | M | M | M | M | M | M | M | M |
| Maturity | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A |
| Age (years) | 12 | 8 | 23 | 8 | 11 | 19 | 13 | 9 | 20 | 18 | 15 | 15 | 10 | 25 | 17 | 23 | 17 | 13 | 14 | 17 | 12 | 12 | 16 | 16 |
| Radionuclides | | | | | | | | | | | | | | | | | | | | | | | | |
| Lead-210 (Bq/g) | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| Polonium-210 (Bq/g) | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | 0.0007 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 |
| Radium-226 (Bq/g) | <0.00007 | <0.00006 | 0.0002 | 0.00009 | 0.0001 | <0.00007 | <0.00007 | <0.00006 | <0.00005 | <0.00004 | 0.0001 | <0.00004 | <0.00006 | <0.00006 | 0.00009 | <0.00006 | <0.00003 | <0.00003 | <0.00005 | <0.00006 | <0.00006 | <0.00006 | <0.00006 | <0.00006 |
| Thorium-230 (Bq/g) | <0.0001 | <0.0001 | <0.0001 | <0.0002 | <0.0002 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.00008 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.00007 | <0.00006 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 |

¹All concentrations are presented on a µg/g wet weight basis, unless specified otherwise.
GN = gill net; LT = lake trout; LW = lake whitefish; M = male; F = female; A = adult.

Appendix B, Table 1

Detailed Camsell Portage (Ellis Bay) fish flesh chemistry data for the EARMP community program, 2011 to 2016.

| Chemical ¹ | Camsell Portage (Ellis Bay) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|-----------------------------|----------|---------|----------|---------|----------|----------|---------|----------|----------|----------|---------|----------|----------|----------|---------------|----------|----------|----------|----------|----------|----------|----------|----------|---------|---------|---------|-------|------|------|
| | Lake Whitefish | | | | | | | | | | | | | | | Northern Pike | | | | | | | | | | | | | | |
| | 2011 | | | | | 2012 | | | | | 2013 | | | | | 2014 | | | | | 2016 | | | | | 2012 | | | | |
| | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | AN1-1 | AN1-1 | AN1-1 | AN1-1 | AN1-1 | | |
| | LW06 | LW07 | LW08 | LW09 | LW10 | LW06 | LW07 | LW06 | LW07 | LW08 | LW09 | LW10 | LW06 | LW07 | LW08 | LW09 | LW10 | LW06 | LW07 | LW08 | LW09 | LW10 | LW06 | LW07 | LW08 | NP01 | NP02 | NP03 | NP04 | NP05 |
| Metals and Trace Elements | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Aluminum | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | 0.8 | 0.5 | 1.1 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | | | |
| Antimony | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | | | |
| Arsenic | 0.38 | 0.24 | 0.36 | 0.31 | 0.17 | 0.37 | 0.24 | 0.14 | 0.31 | 0.34 | 0.17 | 0.48 | 0.25 | 0.26 | 0.33 | 0.03 | 0.05 | 0.24 | 0.09 | 0.07 | 0.09 | 0.15 | 0.09 | 0.12 | 0.12 | 0.1 | 0.1 | | | |
| Barium | <0.01 | 0.04 | 0.06 | <0.01 | <0.01 | 0.03 | 0.02 | 0.04 | 0.05 | 0.05 | 0.02 | 0.02 | 0.09 | 0.02 | 0.04 | 0.02 | <0.01 | 0.02 | 0.01 | 0.03 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | <0.01 | | | |
| Beryllium | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | | | |
| Boron | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | | | |
| Cadmium | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | | | |
| Chromium | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | 0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | | | |
| Cobalt | <0.002 | <0.002 | 0.007 | 0.002 | 0.002 | <0.002 | 0.003 | 0.004 | 0.005 | 0.002 | <0.002 | <0.002 | 0.006 | 0.004 | 0.007 | 0.008 | 0.003 | 0.006 | 0.004 | 0.004 | 0.004 | 0.003 | 0.003 | <0.002 | <0.002 | 0.003 | 0.003 | | | |
| Copper | 0.12 | 0.15 | 0.38 | 0.11 | 0.15 | 0.18 | 0.18 | 0.27 | 0.14 | 0.13 | 0.18 | 0.11 | 0.36 | 0.23 | 0.19 | 0.21 | 0.22 | 0.26 | 0.24 | 0.18 | 0.39 | 0.45 | 0.16 | 0.17 | 0.28 | 0.28 | 0.28 | | | |
| Iron | 1.5 | 1.2 | 3.6 | 1.1 | 2.2 | 1.8 | 3.9 | 2.9 | 2.5 | 3.6 | 1.6 | 2.2 | 4.5 | 2.3 | 3.8 | 2.4 | 2.9 | 2.8 | 2.6 | 1.8 | 2.8 | 3.2 | 1.3 | 0.6 | 3.2 | 3.2 | 3.2 | | | |
| Lead | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | 0.003 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | 0.008 | 0.005 | 0.008 | 0.006 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | | | |
| Manganese | 0.12 | 0.19 | 0.13 | 0.12 | 0.1 | 0.11 | 0.11 | 0.17 | 0.32 | 0.14 | 0.1 | 0.13 | 0.16 | 0.07 | 0.1 | 0.07 | 0.08 | 0.11 | 0.09 | 0.07 | 0.08 | 0.09 | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 | | | |
| Mercury | 0.07 | 0.06 | 0.03 | 0.03 | 0.02 | 0.05 | 0.06 | 0.17 | 0.07 | 0.04 | 0.02 | 0.08 | 0.051 | 0.06 | 0.06 | 0.044 | 0.058 | 0.037 | 0.043 | 0.036 | 0.19 | 0.13 | 0.08 | 0.17 | 0.24 | 0.24 | | | | |
| Molybdenum | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | | | |
| Nickel | <0.01 | <0.01 | 0.02 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | 0.05 | 0.03 | 0.08 | 0.02 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | | | |
| Selenium | 0.29 | 0.25 | 0.25 | 0.22 | 0.25 | 0.31 | 0.25 | 0.27 | 0.26 | 0.24 | 0.29 | 0.25 | 0.25 | 0.23 | 0.27 | 0.2 | 0.24 | 0.28 | 0.27 | 0.25 | 0.2 | 0.17 | 0.22 | 0.18 | 0.19 | 0.19 | 0.19 | | | |
| Silver | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | 0.003 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | | | |
| Strontium | 0.15 | 0.74 | 1 | 0.18 | 0.24 | 0.15 | 0.23 | 0.51 | 0.64 | 0.43 | 0.2 | 0.25 | 0.92 | 0.24 | 0.28 | 0.71 | 0.21 | 0.24 | 0.22 | 0.27 | 0.16 | 0.2 | 0.18 | 0.11 | 0.14 | 0.14 | 0.14 | | | |
| Thallium | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | | | |
| Tin | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | 0.04 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | | | |
| Titanium | 0.07 | 0.07 | 0.06 | 0.06 | 0.07 | 0.02 | <0.01 | 0.04 | 0.03 | 0.04 | 0.04 | 0.05 | 0.11 | 0.11 | 0.16 | 0.1 | 0.12 | <0.01 | <0.01 | <0.01 | 0.02 | 0.02 | 0.02 | 0.01 | 0.01 | 0.01 | 0.01 | | | |
| Uranium | <0.001 | 0.002 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | 0.004 | 0.003 | 0.002 | <0.001 | 0.003 | 0.002 | 0.002 | 0.002 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | | | |
| Vanadium | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | | | |
| Zinc | 3 | 2.8 | 4.4 | 3.3 | 3.1 | 2.8 | 3.2 | 5.5 | 3.3 | 2.5 | 3.9 | 3.3 | 4.9 | 3.6 | 6.4 | 3.8 | 4 | 3.9 | 3.3 | 5.1 | 4.2 | 9.8 | 5.4 | 4.9 | 6.5 | 6.5 | 6.5 | | | |
| Physical Properties | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Moisture (%) | 74.81 | 78.24 | 73.86 | 77.91 | 76.16 | 74.12 | 74.97 | 77.14 | 77.18 | 76.99 | 75.03 | 77.45 | 75.83 | 74.78 | 76.26 | 77.59 | 74.18 | 72.23 | 74.17 | 76.38 | 76.89 | 77.35 | 76.06 | 77.29 | 79.91 | 79.91 | 79.91 | | | |
| Length (cm) | 32.0 | 43.2 | 40.0 | 39.5 | 38.6 | 49.1 | 48.5 | 40.2 | 44.8 | 37.9 | 37.4 | 44.6 | 41.3 | 44 | 47.6 | 38.2 | 43.5 | 45.4 | 45.0 | 49.6 | 76.0 | 67.7 | 67.8 | 72.3 | 89.5 | 89.5 | 89.5 | | | |
| Weight (g) | 1250 | 1260 | 1380 | 1120 | 880 | 1180 | 1120 | 840 | 1120 | 820 | 720 | 1380 | 980 | 1280 | 1460 | 880 | 1400 | 1560 | 1540 | 1880 | 2800 | 2760 | 1660 | 2760 | 4860 | 4860 | 4860 | | | |
| Sex | M | M | F | F | F | M | M | F | F | F | M | M | F | F | F | F | F | M | M | F | F | M | F | F | F | F | F | | | |
| Maturity | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | | | |
| Age (years) | 31 | 27 | 22 | 18 | 11 | 30 | 33 | 30 | 25 | 25 | 9 | 28 | 14 | 14 | 14 | 8 | 14 | 15 | 15 | 11 | 6 | 9 | 5 | 7 | 16 | 16 | | | | |
| Radionuclides | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lead-210 (Bq/g) | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | 0.002 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | | | |
| Polonium-210 (Bq/g) | 0.0005 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | 0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | 0.0002 | <0.0002 | 0.0002 | 0.0007 | 0.0012 | <0.0002 | 0.0009 | 0.0002 | 0.0002 | 0.0004 | 0.0008 | 0.0003 | 0.0003 | 0.0003 | 0.0003 | | | |
| Radium-226 (Bq/g) | <0.00006 | <0.00006 | <0.0002 | <0.00006 | 0.0003 | <0.00007 | <0.00006 | 0.0001 | <0.00006 | <0.00006 | <0.00008 | 0.0002 | <0.00006 | <0.00007 | <0.00006 | <0.00005 | <0.00005 | <0.00006 | <0.00006 | <0.00006 | <0.00006 | <0.00007 | <0.00008 | <0.00006 | 0.00008 | 0.00008 | 0.00008 | | | |
| Thorium-230 (Bq/g) | <0.0001 | <0.0001 | <0.0003 | <0.0001 | <0.0001 | <0.0001 | <0.0002 | <0.0001 | <0.0001 | <0.0001 | <0.0002 | <0.0002 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | | | |

¹All concentrations are presented on a µg/g wet weight basis, unless specified otherwise.
GN = gill net; LT = lake trout; LW = lake whitefish; M = male; F = female; A = adult.

Appendix B, Table 1

Detailed fish flesh chemistry data for the EARMP community program, 2011 and 2016.

| Chemical ¹ | Fond du Lac (Fond du Lac River) | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|---------------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|---------|----------|----------|----------|----------|----------|----------|
| | Lake Trout | | | | | | | | | | | | | | | | | | | | | | | |
| | 2011 | | | | | 2012 | | | | | 2013 | | | | | 2014 | | | | | 2016 | | | |
| | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | |
| LT01 | LT02 | LT03 | LT04 | LT05 | LT06 | LT07 | LT08 | LT09 | LT10 | LT06 | LT07 | LT08 | LT09 | LT10 | LT06 | LT07 | LT08 | LT09 | LT10 | LT01 | LT02 | LT03 | | |
| Metals and Trace Elements | | | | | | | | | | | | | | | | | | | | | | | | |
| Aluminum | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | 0.6 | <0.5 | <0.5 | <0.5 |
| Antimony | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| Arsenic | 0.17 | 0.08 | 0.10 | 0.05 | 0.12 | 0.05 | 0.06 | 0.1 | 0.14 | 0.08 | 0.05 | 0.04 | 0.08 | 0.11 | 0.06 | 0.07 | 0.04 | 0.11 | 0.13 | 0.05 | 0.05 | 0.05 | 0.05 | 0.07 |
| Barium | <0.01 | 0.02 | 0.01 | 0.66 | 0.01 | 0.02 | 0.02 | 0.02 | <0.01 | <0.01 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | 0.04 | 0.03 | 0.06 | 0.07 | |
| Beryllium | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 |
| Boron | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 |
| Cadmium | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 |
| Chromium | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Cobalt | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | 0.003 | <0.002 | 0.003 | 0.002 | 0.003 | <0.002 | 0.003 | 0.012 | |
| Copper | 0.17 | 0.31 | 0.4 | 0.19 | 0.4 | 0.31 | 0.26 | 0.23 | 0.28 | 0.21 | 0.36 | 0.25 | 0.24 | 0.43 | 0.24 | 0.2 | 0.17 | 0.4 | 0.22 | 0.36 | 0.22 | 0.33 | 0.33 | |
| Iron | 2.1 | 2.1 | 3.2 | 1.8 | 2.8 | 3.4 | 1.8 | 1.4 | 4.0 | 1.4 | 2.2 | 1.3 | 1.6 | 2.1 | 1.3 | 2.6 | 2.3 | 3.3 | 2.8 | 3.6 | 3 | 2.2 | 5 | |
| Lead | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | 0.004 | 0.003 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | 0.008 | <0.002 | <0.002 | 0.003 | <0.002 | 0.002 | 0.004 | 0.007 | 0.002 | 0.002 | 0.003 | |
| Manganese | 0.09 | 0.08 | 0.09 | 0.1 | 0.08 | 0.07 | 0.04 | 0.07 | 0.06 | 0.08 | 0.05 | 0.06 | 0.07 | 0.07 | 0.05 | 0.09 | 0.04 | 0.12 | 0.14 | 0.1 | 0.07 | 0.08 | 0.08 | |
| Mercury | 0.26 | 0.30 | 0.24 | 0.1 | 0.23 | 0.17 | 0.14 | 0.14 | 0.26 | 0.31 | 0.09 | 0.11 | 0.09 | 0.05 | 0.04 | 0.83 | 0.46 | 0.49 | 0.74 | 0.44 | 0.19 | 0.085 | 0.25 | |
| Molybdenum | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| Nickel | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | 0.02 | <0.01 | 0.02 | <0.01 | <0.01 | 0.02 | <0.01 | 0.02 | 0.02 | 0.02 | <0.01 | <0.01 | 0.02 | |
| Selenium | 0.17 | 0.12 | 0.16 | 0.16 | 0.13 | 0.16 | 0.14 | 0.18 | 0.15 | 0.13 | 0.18 | 0.14 | 0.14 | 0.16 | 0.16 | 0.13 | 0.07 | 0.16 | 0.09 | 0.12 | 0.16 | 0.18 | 0.16 | |
| Silver | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 |
| Strontium | 0.11 | 0.16 | 0.18 | 0.20 | 0.18 | 0.12 | 0.09 | 0.21 | 0.16 | 0.15 | 0.1 | 0.09 | 0.11 | 0.04 | 0.08 | 0.19 | 0.05 | 0.13 | 0.15 | 0.13 | 0.08 | 0.14 | 0.09 | |
| Thallium | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | 0.01 | <0.01 | <0.01 | <0.01 | 0.01 | <0.01 | 0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.01 | <0.01 | <0.01 | <0.01 | 0.02 | |
| Tin | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Titanium | 0.08 | 0.09 | 0.09 | 0.1 | 0.08 | 0.08 | 0.07 | 0.08 | 0.08 | 0.08 | 0.01 | <0.01 | 0.01 | 0.01 | <0.01 | 0.09 | 0.04 | 0.1 | 0.08 | 0.09 | <0.01 | <0.01 | 0.01 | |
| Uranium | <0.001 | 0.001 | <0.001 | <0.001 | <0.001 | 0.002 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | 0.002 | <0.001 | <0.001 | <0.001 | |
| Vanadium | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| Zinc | 3 | 3.7 | 4.2 | 3.2 | 3.9 | 4.2 | 3.4 | 3.8 | 4.4 | 3.4 | 4.2 | 3.3 | 2.9 | 3.3 | 2.8 | 3.8 | 1.8 | 3.6 | 6.3 | 3.8 | 6.1 | 3 | 3.6 | |
| Physical Properties | | | | | | | | | | | | | | | | | | | | | | | | |
| Moisture (%) | 76.91 | 76.77 | 74.35 | 75.75 | 71.88 | 77.01 | 75.5 | 69.03 | 77.64 | 68.66 | 74.35 | 74.57 | 75.49 | 72.33 | 73.93 | 81.13 | 73.27 | 76.95 | 79.64 | 74.4 | 77.54 | 71.06 | 72.59 | |
| Length (cm) | 49.6 | 46.4 | 53.9 | 49.1 | 49.2 | 60.5 | 55.6 | 61.2 | 63.4 | 63.5 | 48.5 | 52.7 | 56.8 | 51.5 | 50.1 | 54.5 | 57.1 | 60.2 | 55.7 | 58.5 | 58.9 | 57.6 | 54 | |
| Weight (g) | 1430 | 1310 | 2020 | 1230 | 1530 | 1680 | 1420 | 1940 | 1840 | 2280 | 1520 | 1940 | 2200 | 1640 | 1620 | 1405 | 2205 | 2860 | 1670 | 2410 | 2160 | 2060 | 1740 | |
| Sex | M | F | F | F | M | M | M | F | F | F | M | M | M | M | M | F | M | F | F | F | F | F | M | |
| Maturity | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A |
| Age (years) | 12 | 10 | 15 | 9 | 8 | 17 | 11 | 15 | - | 14 | 9 | 11 | 12 | 9 | 8 | 29 | 20 | 16 | 21 | 13 | 18 | 11 | 21 | |
| Radionuclides | | | | | | | | | | | | | | | | | | | | | | | | |
| Lead-210 (Bq/g) | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | 0.002 | <0.001 | <0.001 | 0.002 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| Polonium-210 (Bq/g) | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 |
| Radium-226 (Bq/g) | <0.00006 | <0.00006 | <0.00006 | <0.00006 | <0.00006 | <0.00005 | <0.00006 | <0.00005 | <0.00006 | <0.00006 | <0.00006 | <0.00006 | <0.00006 | <0.00006 | <0.00005 | <0.00006 | <0.00004 | 0.00007 | <0.00005 | <0.00006 | <0.00006 | <0.00006 | <0.00006 | <0.00006 |
| Thorium-230 (Bq/g) | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.00008 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 |

¹All concentrations are presented on a µg/g wet weight basis, unless specified otherwise.
GN = gill net; LT = lake trout; LW = lake whitefish; M = male; F = female; A = adult.

Appendix B, Table 1

Detailed Fond du Lac fish flesh chemistry data for the EARMF community program, 2011 and 2016.

| Chemical ¹ | Fond du Lac (Fond du Lac River) | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|---------------------------------|----------|----------|----------|----------|----------|----------|----------|--------|--------|----------|---------|----------|----------|----------|---------|----------|----------|----------|----------|----------|----------|----------|
| | Lake Whitefish | | | | | | | | | | | | | | | | | | | | | | |
| | 2011 | | | | | 2012 | | | | | 2013 | | | | | 2014 | | | | | 2016 | | |
| | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 |
| LW06 | LW07 | LW08 | LW09 | LW10 | LW01 | LW02 | LW03 | LW04 | LW05 | LW01 | LW02 | LW03 | LW04 | LW05 | LW01 | LW02 | LW03 | LW04 | LW05 | LW04 | LW05 | LW06 | |
| Metals and Trace Elements | | | | | | | | | | | | | | | | | | | | | | | |
| Aluminum | <0.5 | <0.5 | <0.5 | <0.5 | 1.3 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | 0.6 | <0.5 | <0.5 | <0.5 | 0.6 | <0.5 |
| Antimony | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| Arsenic | 0.40 | 0.19 | 0.20 | 0.52 | 0.29 | 0.02 | 0.22 | 0.22 | 0.18 | 0.19 | 0.04 | 0.04 | 0.11 | 0.08 | 0.03 | 0.16 | 0.02 | 0.04 | 0.28 | 0.04 | 0.03 | 0.29 | 0.26 |
| Barium | 0.06 | 0.04 | 0.02 | <0.01 | 0.03 | 0.02 | 0.04 | 0.01 | 0.07 | 0.02 | 0.01 | <0.01 | 0.02 | 0.03 | 0.01 | 0.14 | <0.01 | 0.04 | 0.06 | 0.05 | 0.06 | 0.21 | 0.01 |
| Beryllium | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 |
| Boron | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 |
| Cadmium | 0.002 | <0.002 | <0.002 | <0.002 | 0.006 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | 0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 |
| Chromium | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Cobalt | 0.003 | 0.005 | 0.003 | 0.003 | 0.015 | 0.003 | 0.002 | 0.003 | 0.003 | <0.002 | 0.004 | 0.014 | 0.003 | 0.004 | <0.002 | 0.007 | 0.006 | 0.02 | 0.003 | 0.012 | 0.016 | 0.011 | 0.004 |
| Copper | 0.14 | 0.18 | 0.12 | 0.22 | 0.28 | 0.27 | 0.16 | 0.16 | 0.15 | 0.13 | 0.22 | 0.16 | 0.15 | 0.34 | 0.13 | 0.13 | 0.14 | 0.19 | 0.16 | 0.17 | 0.19 | 0.1 | 0.26 |
| Iron | 1.7 | 2.9 | 1.3 | 2.6 | 6.0 | 2.0 | 1.0 | 1.4 | 1.4 | 1.3 | 2.1 | 3.1 | 1.3 | 4.4 | 1.1 | 1.8 | 1.4 | 3.1 | 1.8 | 2 | 1.8 | 1.9 | 2.6 |
| Lead | <0.002 | 0.002 | <0.002 | <0.002 | <0.002 | 0.003 | 0.004 | 0.003 | <0.002 | 0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | 0.002 | <0.002 | 0.008 | <0.002 | <0.002 | 0.004 | 0.005 | <0.002 |
| Manganese | 0.17 | 0.13 | 0.07 | 0.14 | 0.08 | 0.05 | 0.08 | 0.14 | 0.19 | 0.08 | 0.08 | 0.09 | 0.06 | 0.1 | 0.07 | 0.21 | 0.07 | 0.19 | 0.1 | 0.1 | 0.08 | 0.22 | 0.09 |
| Mercury | 0.14 | 0.12 | 0.14 | 0.18 | 0.18 | 0.02 | 0.05 | 0.02 | 0.02 | 0.03 | 0.03 | 0.02 | 0.02 | 0.03 | 0.04 | 0.086 | 0.14 | 0.051 | 0.081 | 0.059 | 0.079 | 0.12 | 0.065 |
| Molybdenum | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| Nickel | <0.01 | <0.01 | <0.01 | <0.01 | 0.02 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | 0.01 | 0.02 | 0.02 | 0.04 | <0.01 | 0.1 | 0.02 | 0.02 | <0.01 |
| Selenium | 0.25 | 0.15 | 0.22 | 0.20 | 0.29 | 0.17 | 0.28 | 0.2 | 0.16 | 0.23 | 0.22 | 0.13 | 0.27 | 0.21 | 0.18 | 0.15 | 0.11 | 0.12 | 0.24 | 0.17 | 0.34 | 0.24 | 0.16 |
| Silver | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 |
| Strontium | 1.00 | 0.88 | 0.55 | 0.15 | 0.36 | 0.51 | 0.24 | 0.27 | 1.6 | 0.2 | 0.19 | 0.26 | 0.19 | 0.61 | 0.15 | 2.2 | 0.33 | 1.2 | 0.68 | 0.33 | 0.21 | 1.4 | 0.31 |
| Thallium | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Tin | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Titanium | 0.08 | 0.08 | 0.09 | 0.07 | 0.1 | 0.07 | 0.08 | 0.07 | 0.08 | 0.07 | 0.02 | 0.01 | 0.02 | 0.02 | 0.02 | 0.1 | 0.09 | 0.1 | 0.07 | 0.09 | 0.02 | 0.01 | <0.01 |
| Uranium | 0.002 | <0.001 | <0.001 | <0.001 | 0.003 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | 0.004 | <0.001 | <0.001 | <0.001 | 0.002 | <0.001 |
| Vanadium | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| Zinc | 3 | 4.2 | 3.2 | 3 | 4.2 | 6.2 | 3.8 | 3.5 | 4 | 3.4 | 3.8 | 4 | 3.9 | 5.4 | 3.5 | 3.3 | 4.6 | 4.4 | 4.2 | 3.6 | 5 | 4 | 3.8 |
| Physical Properties | | | | | | | | | | | | | | | | | | | | | | | |
| Moisture (%) | 73.98 | 78.34 | 76.86 | 75.56 | 75.69 | 75.73 | 71.01 | 74.93 | 73.77 | 76.15 | 75.67 | 78.03 | 73.18 | 76.28 | 78.04 | 78.86 | 77.96 | 76.51 | 77.23 | 76.57 | 74.6 | 81.27 | 73.88 |
| Length (cm) | 38.5 | 44.9 | 36.4 | 41.1 | 42.2 | 44.4 | 43.8 | 46.6 | 42.8 | 36.5 | 46.5 | 43.4 | 40.5 | 40.1 | 42.3 | 42.5 | 45 | 41.3 | 41.9 | 39.4 | 47.0 | 38.6 | 47.4 |
| Weight (g) | 900 | 1340 | 805 | 1100 | 1120 | 940 | 1040 | 1100 | 860 | 520 | 1420 | 1120 | 980 | 820 | 1000 | 965 | 1240 | 910 | 965 | 875 | 1540 | 840 | 1360 |
| Sex | M | M | F | F | M | M | F | M | F | M | F | M | F | M | M | F | F | M | F | M | F | M | F |
| Maturity | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A |
| Age (years) | 30 | 26 | 31 | 33 | 38 | 7 | 27 | 20 | 15 | 27 | 14 | 12 | 13 | 13 | 8 | 19 | 9 | 15 | 17 | 11 | 11 | 33 | 16 |
| Radionuclides | | | | | | | | | | | | | | | | | | | | | | | |
| Lead-210 (Bq/g) | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.004 | <0.004 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| Polonium-210 (Bq/g) | <0.0002 | <0.0002 | 0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | 0.0002 | <0.001 | <0.001 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 |
| Radium-226 (Bq/g) | <0.00008 | <0.00006 | <0.00006 | <0.00006 | <0.00007 | <0.00007 | <0.00008 | <0.00009 | <0.001 | 0.002 | <0.00009 | 0.0001 | <0.00006 | <0.00006 | <0.00006 | 0.00008 | <0.00006 | <0.00007 | <0.00006 | <0.00006 | <0.00006 | <0.00006 | <0.00006 |
| Thorium-230 (Bq/g) | <0.0002 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0002 | <0.0002 | <0.002 | <0.002 | <0.0002 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | 0.0002 | <0.0001 | <0.0001 | <0.0001 | <0.0001 |

¹All concentrations are presented on a µg/g wet weight basis, unless specified otherwise.
GN = gill net; LT = lake trout; LW = lake whitefish; M = male; F = female; A = adult.

Appendix B, Table 1

Detailed fish flesh chemistry data for the EARMF community program, 2011 to 2016.

| Chemical ¹ | Stony Rapids (Fond du Lac River) | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|----------------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|---------|----------|----------|----------|----------|----------|----------|----------|----------|
| | Lake Trout | | | | | | | | | | | | | | | | | | | | | |
| | 2011 | | | | | 2012 | | | | | 2013 | | | | | 2014 | | | | | 2016 | |
| | GN1-1 | GN1-1 | GN1-1 | GN1-1 | SP01-01 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 |
| LT01 | LT02 | LT03 | LT04 | LT05 | LT06 | LT07 | LT08 | LT09 | LT01 | LT02 | LT03 | LT04 | LT05 | LT01 | LT02 | LT03 | LT04 | LT05 | LT01 | LT02 | LT03 | |
| Metals and Trace Elements | | | | | | | | | | | | | | | | | | | | | | |
| Aluminum | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| Antimony | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| Arsenic | 0.02 | 0.06 | 0.05 | 0.06 | 0.09 | 0.07 | 0.18 | 0.06 | 0.07 | 0.06 | 0.18 | 0.25 | 0.09 | 0.08 | 0.14 | 0.11 | 0.04 | 0.07 | 0.04 | 0.1 | 0.12 | 0.08 |
| Barium | <0.01 | <0.01 | 0.01 | <0.01 | 0.01 | 0.01 | 0.01 | 0.02 | 0.01 | <0.01 | <0.01 | <0.01 | <0.01 | 0.01 | 0.09 | <0.01 | 0.07 | 0.03 | 0.02 | 0.05 | 0.03 | |
| Beryllium | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 |
| Boron | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 |
| Cadmium | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 |
| Chromium | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | 0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Cobalt | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | 0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | 0.006 | 0.005 | <0.002 | 0.004 | 0.003 | 0.004 | 0.004 | 0.003 |
| Copper | 0.28 | 0.2 | 0.22 | 0.22 | 0.17 | 0.21 | 0.78 | 0.2 | 0.36 | 0.39 | 0.45 | 0.32 | 0.32 | 0.28 | 0.43 | 0.93 | 0.34 | 0.3 | 0.3 | 0.43 | 0.73 | 0.61 |
| Iron | 1.9 | 1.7 | 1.5 | 1.6 | 1.2 | 2.3 | 8.6 | 2.6 | 4.0 | 3.6 | 3.3 | 6.1 | 3.1 | 2.7 | 10 | 8.9 | 3 | 2.3 | 2.1 | 4 | 6.1 | 4.2 |
| Lead | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | 0.011 | 0.003 | <0.002 | 0.004 | <0.002 | <0.002 | <0.002 | <0.002 |
| Manganese | 0.09 | 0.09 | 0.08 | 0.12 | 0.06 | 0.09 | 0.08 | 0.1 | 0.07 | 0.11 | 0.07 | 0.06 | 0.06 | 0.07 | 0.13 | 0.09 | 0.06 | 0.07 | 0.06 | 0.05 | 0.05 | 0.08 |
| Mercury | 0.27 | 0.46 | 0.57 | 0.38 | 0.49 | 0.12 | 0.19 | 0.18 | 0.27 | 0.17 | 0.12 | 0.13 | 0.3 | 0.16 | 0.11 | 0.24 | 0.23 | 0.21 | 0.19 | 0.14 | 0.2 | 0.16 |
| Molybdenum | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| Nickel | 0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | 0.01 | <0.01 | <0.01 | 0.06 | <0.01 | <0.01 | 0.01 | <0.01 | <0.01 | 0.02 | <0.01 |
| Selenium | 0.10 | 0.11 | 0.09 | 0.14 | 0.16 | 0.15 | 0.19 | 0.17 | 0.19 | 0.16 | 0.19 | 0.15 | 0.18 | 0.15 | 0.13 | 0.15 | 0.16 | 0.15 | 0.14 | 0.18 | 0.16 | 0.16 |
| Silver | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | 0.003 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 |
| Strontium | 0.10 | 0.09 | 0.21 | 0.23 | 0.09 | 0.13 | 0.14 | 0.14 | 0.14 | 0.08 | 0.14 | 0.30 | 0.14 | 0.10 | 0.26 | 0.15 | 0.2 | 0.34 | 0.28 | 0.22 | 0.25 | 0.17 |
| Thallium | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | 0.01 | 0.02 | <0.01 | 0.01 | 0.01 | 0.01 | <0.01 | 0.02 | 0.01 | <0.01 | 0.01 | 0.01 | 0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Tin | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Titanium | 0.08 | 0.07 | 0.08 | 0.08 | 0.08 | 0.07 | 0.08 | 0.08 | 0.08 | 0.04 | 0.03 | 0.04 | 0.03 | 0.03 | 0.14 | 0.09 | 0.09 | 0.09 | 0.08 | 0.02 | <0.01 | 0.01 |
| Uranium | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | 0.002 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| Vanadium | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| Zinc | 4.7 | 3.1 | 3.4 | 3.3 | 2.5 | 3.8 | 5.4 | 3.6 | 3.8 | 3.1 | 4 | 4 | 3.8 | 3.1 | 3.3 | 5.2 | 4.3 | 4.3 | 3 | 3.5 | 3.8 | 3.2 |
| Physical Properties | | | | | | | | | | | | | | | | | | | | | | |
| Moisture (%) | 77.77 | 77.9 | 77.43 | 76.77 | 73.64 | 78.8 | 76.77 | 78.11 | 78.05 | 73.56 | 74.02 | 75.29 | 75.06 | 73.99 | 73.76 | 75.09 | 76.3 | 76.67 | 75.55 | 70.53 | 75.35 | 72.93 |
| Length (cm) | 54.9 | 55.9 | 57.2 | 64.9 | 69.6 | 57.2 | 62.8 | 61.0 | 59.8 | 52.0 | 52.5 | 55.0 | 57.0 | 51.2 | 49.5 | 51.9 | 44.7 | 54 | 48.7 | 55 | 55.7 | 52.1 |
| Weight (g) | 1750 | 2060 | 2180 | 2840 | 3720 | 1520 | 2060 | 1840 | 1820 | 1720 | 1680 | 1940 | 2060 | 1600 | 1580 | 1640 | 1100 | 1670 | 1440 | 2080 | 1960 | 1920 |
| Sex | F | F | F | F | M | M | M | M | M | F | M | F | M | F | F | M | M | M | F | F | F | F |
| Maturity | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A |
| Age (years) | 10 | 15 | 16 | 17 | 15 | 14 | 22 | 21 | 22 | 12 | 12 | 11 | 16 | 13 | 11 | 14 | 12 | 12 | 11 | 15 | 11 | 15 |
| Radionuclides | | | | | | | | | | | | | | | | | | | | | | |
| Lead-210 (Bq/g) | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | 0.001 | 0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| Polonium-210 (Bq/g) | <0.0002 | <0.0002 | 0.0004 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | 0.0003 | <0.0002 | <0.0002 | 0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 |
| Radium-226 (Bq/g) | <0.00007 | <0.00006 | <0.00006 | <0.00006 | <0.00006 | <0.00006 | <0.00006 | <0.00006 | <0.00006 | <0.00007 | <0.00006 | <0.00008 | <0.00006 | 0.0001 | <0.00006 | <0.00006 | <0.00008 | <0.00006 | <0.00007 | <0.00006 | <0.00005 | <0.00006 |
| Thorium-230 (Bq/g) | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0002 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0002 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 |

¹All concentrations are presented on a µg/g wet weight basis, unless specified otherwise.

GN = gill net; LT = lake trout; LW = lake whitefish; M = male; F = female; A = adult.

Appendix B, Table 1

Detailed fish flesh chemistry data for the EARMF community program, 2011 to 2016.

| Chemical ¹ | Stony Rapids (Fond du Lac River) | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|----------------------------------|----------|----------|---------|----------|----------|--------|----------|----------|----------|----------|----------|---------|---------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| | Lake Whitefish | | | | | | | | | | | | | | | | | | | | | | |
| | 2011 | | | | | 2012 | | | | | 2013 | | | | | 2014 | | | | | 2016 | | |
| | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 |
| LW06 | LW07 | LW08 | LW09 | LW10 | LW01 | LW02 | LW03 | LW04 | LW05 | LW06 | LW07 | LW08 | LW09 | LW10 | LW06 | LW07 | LW08 | LW09 | LW10 | LW04 | LW05 | LW06 | |
| Metals and Trace Elements | | | | | | | | | | | | | | | | | | | | | | | |
| Aluminum | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | 0.6 | <0.5 |
| Antimony | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| Arsenic | 0.06 | 0.03 | 0.03 | 0.07 | 0.02 | 0.02 | 0.06 | 0.05 | 0.03 | 0.04 | 0.03 | 0.02 | 0.04 | 0.03 | 0.03 | 0.01 | 0.01 | 0.01 | 0.02 | 0.09 | 0.02 | 0.06 | 0.04 |
| Barium | 0.01 | 0.01 | 0.09 | <0.01 | 0.02 | 0.01 | 0.05 | 0.01 | 0.01 | 0.02 | <0.01 | 0.02 | <0.01 | <0.01 | 0.02 | 0.07 | <0.01 | 0.08 | 0.03 | 0.04 | <0.01 | 0.04 | 0.05 |
| Beryllium | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 |
| Boron | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 |
| Cadmium | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 |
| Chromium | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Cobalt | 0.005 | 0.009 | 0.012 | 0.004 | 0.008 | <0.002 | 0.009 | 0.005 | 0.007 | 0.003 | 0.004 | 0.004 | 0.006 | 0.004 | 0.005 | 0.003 | 0.005 | 0.003 | 0.004 | 0.008 | 0.012 | 0.023 | 0.007 |
| Copper | 0.36 | 0.15 | 0.14 | 0.26 | 0.19 | 0.24 | 0.14 | 0.3 | 0.14 | 0.11 | 0.31 | 0.15 | 0.17 | 0.23 | 0.25 | 0.19 | 0.2 | 0.25 | 0.23 | 0.2 | 0.17 | 0.11 | 0.2 |
| Iron | 3.5 | 2.0 | 2.0 | 2.2 | 1.7 | 1.3 | 1.4 | 4.2 | 1.9 | 1.1 | 4.7 | 1.9 | 1.2 | 2.2 | 2.4 | 1.9 | 1.8 | 1.6 | 2.2 | 2 | 1.9 | 1.7 | 1.8 |
| Lead | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | 0.004 | 0.004 | 0.004 | 0.002 |
| Manganese | 0.09 | 0.1 | 0.18 | 0.08 | 0.1 | 0.08 | 0.22 | 0.08 | 0.1 | 0.1 | 0.09 | 0.12 | 0.08 | 0.12 | 0.19 | 0.09 | 0.09 | 0.1 | 0.18 | 0.09 | 0.12 | 0.08 | 0.08 |
| Mercury | 0.23 | 0.06 | 0.15 | 0.37 | 0.06 | 0.05 | 0.05 | 0.14 | 0.06 | 0.13 | 0.09 | 0.04 | 0.04 | 0.07 | 0.06 | 0.13 | 0.098 | 0.08 | 0.1 | 0.056 | 0.036 | 0.048 | 0.039 |
| Molybdenum | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| Nickel | 0.05 | <0.01 | 0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | 0.02 | <0.01 | <0.01 | <0.01 | 0.02 | 0.04 |
| Selenium | 0.13 | 0.10 | 0.15 | 0.27 | 0.12 | 0.18 | 0.12 | 0.14 | 0.18 | 0.13 | 0.14 | 0.13 | 0.15 | 0.12 | 0.12 | 0.11 | 0.08 | 0.11 | 0.12 | 0.16 | 0.12 | 0.17 | 0.1 |
| Silver | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 |
| Strontium | 0.23 | 0.26 | 2.00 | 0.12 | 0.24 | 0.28 | 1.8 | 0.3 | 0.23 | 0.24 | 0.27 | 0.22 | 0.17 | 0.22 | 0.25 | 0.36 | 0.1 | 0.18 | 0.3 | 0.29 | 0.5 | 0.5 | 0.34 |
| Thallium | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Tin | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Titanium | 0.07 | 0.08 | 0.08 | 0.07 | 0.09 | 0.06 | 0.07 | 0.07 | 0.06 | 0.06 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.09 | 0.06 | 0.09 | 0.09 | 0.08 | <0.01 | <0.01 | 0.01 |
| Uranium | <0.001 | <0.001 | 0.001 | <0.001 | <0.001 | <0.001 | 0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | 0.007 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| Vanadium | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| Zinc | 4.0 | 4.0 | 4.1 | 8.3 | 4.7 | 6.1 | 7.0 | 3.6 | 3.4 | 3.4 | 4.0 | 4.6 | 3.4 | 4.9 | 4.7 | 3.8 | 2.8 | 3.6 | 4.2 | 3.9 | 4.5 | 4.9 | 4.4 |
| Physical Properties | | | | | | | | | | | | | | | | | | | | | | | |
| Moisture (%) | 76.78 | 78.07 | 78.94 | 77.19 | 75.5 | 74.99 | 80.97 | 76.82 | 80.22 | 79.53 | 76.95 | 78.07 | 73.93 | 75.51 | 76.73 | 74.28 | 79.2 | 76.81 | 75.18 | 76.08 | 76.94 | 75.08 | 76.91 |
| Length (cm) | 47.8 | 44.8 | 48.1 | 51.4 | 42.5 | 48.0 | 47.0 | 50.6 | 50.8 | 49.5 | 44.5 | 42.2 | 43.3 | 39.9 | 40.5 | 44 | 43.2 | 44.2 | 41.8 | 49.6 | 42.0 | 47.4 | 41.0 |
| Weight (g) | 1490 | 1640 | 1730 | 2060 | 1410 | 1420 | 980 | 1680 | 1360 | 1520 | 1180 | 940 | 1100 | 1000 | 960 | 1300 | 1120 | 1120 | 1130 | 1560 | 1160 | 1520 | 1040 |
| Sex | F | F | F | F | M | F | F | M | F | F | M | F | F | M | M | F | F | F | M | F | F | F | F |
| Maturity | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A |
| Age (years) | 27 | 14 | 13 | 29 | 8 | 9 | 14 | 18 | 15 | 18 | 18 | 8 | 11 | 11 | 10 | 11 | 9 | 9 | 8 | 11 | 8 | 12 | 12 |
| Radionuclides | | | | | | | | | | | | | | | | | | | | | | | |
| Lead-210 (Bq/g) | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| Polonium-210 (Bq/g) | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.001 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | 0.0002 | <0.0002 | 0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 |
| Radium-226 (Bq/g) | <0.00008 | 0.0001 | 0.00006 | 0.0001 | <0.00006 | <0.00005 | 0.001 | <0.00006 | <0.00007 | <0.00005 | <0.00006 | <0.00006 | 0.0001 | 0.00009 | <0.00006 | <0.00007 | <0.00006 | <0.00006 | <0.00006 | <0.00006 | <0.00006 | <0.00006 | <0.00006 |
| Thorium-230 (Bq/g) | <0.0002 | <0.00009 | <0.00008 | <0.0002 | <0.0001 | <0.0001 | <0.002 | <0.0001 | <0.0001 | 0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 |

¹All concentrations are presented on a µg/g wet weight basis, unless specified otherwise.

GN = gill net; LT = lake trout; LW = lake whitefish; M = male; F = female; A = adult.

Appendix B, Table 1

Detailed fish flesh chemistry data for the EARMF community program, 2011 to 2016.

| Chemical ¹ | Wollaston Lake/Hatchet Lake (Welcome Bay, Wollaston Lake) | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|---|----------|----------|---------|---------|----------|----------|----------|----------|----------|---------|---------|----------|----------|---------|----------|----------|----------|----------|----------|----------|----------|----------|
| | Lake Trout | | | | | | | | | | | | | | | | | | | | | | |
| | 2011 | | | | | 2012 | | | | | 2013 | | | | | 2014 | | | | | 2016 | | |
| | GN1-1 | GN1-1 | GN1-1 | SP01-01 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 |
| LT01 | LT02 | LT03 | LT04 | LT05 | LT06 | LT07 | LT08 | LT09 | LT10 | LT07 | LT08 | LT09 | LT10 | LT11 | LT07 | LT08 | LT09 | LT10 | LT11 | LT01 | LT02 | LT03 | |
| Metals and Trace Elements | | | | | | | | | | | | | | | | | | | | | | | |
| Aluminum | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | -0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| Antimony | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | -0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| Arsenic | 0.06 | 0.03 | 0.04 | 0.02 | 0.04 | 0.05 | 0.04 | 0.04 | 0.08 | 0.02 | 0.02 | 0.04 | 0.03 | 0.06 | 0.02 | 0.01 | 0.03 | 0.02 | 0.03 | 0.05 | 0.03 | 0.02 | 0.09 |
| Barium | 0.02 | 0.02 | 0.02 | 0.02 | <0.01 | 0.02 | 0.01 | <0.01 | 0.02 | <0.01 | <0.01 | 0.02 | <0.01 | <0.01 | 0.02 | 0.02 | 0.03 | 0.02 | 0.01 | 0.03 | <0.01 | <0.01 | <0.01 |
| Beryllium | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | -0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 |
| Boron | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | -0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 |
| Cadmium | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | -0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 |
| Chromium | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | -0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Cobalt | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | 0.003 | <0.002 | <0.002 | 0.006 | 0.002 | 0.004 | <0.002 | 0.003 |
| Copper | 0.62 | 0.48 | 0.53 | 0.31 | 0.3 | 0.52 | 0.39 | 0.4 | 0.69 | 0.24 | 0.35 | 0.38 | 0.34 | 0.3 | 0.32 | 0.44 | 0.25 | 0.29 | 0.26 | 0.29 | 0.32 | 0.33 | 0.2 |
| Iron | 6.0 | 4.0 | 2.6 | 1.8 | 1.9 | 3.1 | 2.8 | 2.2 | 3.8 | 1.6 | 2.3 | 3 | 2.6 | 2.2 | 2.1 | 2 | 1.9 | 1.7 | 1.6 | 2.7 | 3.2 | 3.4 | 1.4 |
| Lead | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | 0.005 | -0.002 | <0.002 | 0.004 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 |
| Manganese | 0.1 | 0.1 | 0.07 | 0.06 | 0.07 | 0.08 | 0.06 | 0.08 | 0.07 | 0.05 | 0.08 | 0.09 | 0.1 | 0.1 | 0.09 | 0.08 | 0.11 | 0.06 | 0.1 | 0.09 | 0.11 | 0.09 | 0.1 |
| Mercury | 0.15 | 0.16 | 0.16 | 0.20 | 0.12 | 0.24 | 0.15 | 0.13 | 0.16 | 0.14 | 0.14 | 0.1 | 0.09 | 0.1 | 0.18 | 0.18 | 0.26 | 0.2 | 0.19 | 0.38 | 0.16 | 0.22 | 0.22 |
| Molybdenum | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | -0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| Nickel | 0.01 | <0.01 | 0.02 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | 0.05 | <0.01 | <0.01 | 0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Selenium | 0.17 | 0.28 | 0.19 | 0.18 | 0.19 | 0.27 | 0.21 | 0.22 | 0.22 | 0.21 | 0.21 | 0.2 | 0.2 | 0.18 | 0.2 | 0.19 | 0.18 | 0.2 | 0.21 | 0.16 | 0.21 | 0.24 | 0.24 |
| Silver | <0.002 | 0.003 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | -0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 |
| Strontium | 0.09 | 0.22 | 0.09 | 0.15 | 0.05 | 0.19 | 0.09 | 0.07 | 0.11 | 0.03 | 0.19 | 0.1 | 0.05 | 0.04 | 0.05 | 0.12 | 0.24 | 0.08 | 0.04 | 0.16 | 0.06 | 0.03 | 0.02 |
| Thallium | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | -0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Tin | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | -0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Titanium | 0.09 | 0.09 | 0.09 | 0.09 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.07 | 0.03 | 0.03 | 0.03 | 0.07 | 0.04 | 0.08 | 0.08 | 0.07 | 0.08 | 0.08 | 0.01 | <0.01 | 0.01 |
| Uranium | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | 0.002 | <0.001 | -0.001 | <0.001 | 0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| Vanadium | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | -0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| Zinc | 5.5 | 6.6 | 3.9 | 3.1 | 3.3 | 5.8 | 3.6 | 3.8 | 4.8 | 3.1 | 5.7 | 4.2 | 3.8 | 4.8 | 3.7 | 3.6 | 3 | 2.5 | 2.6 | 4.5 | 4 | 2.7 | 2.4 |
| Physical Properties | | | | | | | | | | | | | | | | | | | | | | | |
| Moisture (%) | 78.93 | 75.5 | 76.46 | 75.65 | 75.48 | 75.41 | 73.15 | 73.02 | 79.09 | 75.73 | 76.78 | 72.75 | 72.82 | 71.52 | 74.12 | 78.37 | 75.48 | 75.05 | 77.38 | 74.92 | 75.2 | 77.38 | 77.09 |
| Length (cm) | 51.5 | 46.3 | 46.8 | 47.9 | 46.6 | 55.6 | 50.5 | 50.8 | 50.5 | 52.0 | 45.3 | 46.5 | 44.1 | 45.4 | 48.5 | 48.4 | 49.8 | 52.2 | 50.6 | 55.9 | 48.0 | 52.0 | 52.4 |
| Weight (g) | 1730 | 1220 | 1440 | 1410 | 1430 | 1760 | 1420 | 1360 | 1400 | 1520 | 1200 | 1340 | 1060 | 1060 | 1400 | 1580 | 1610 | 1850 | 1780 | 2020 | 1600 | 1800 | 1980 |
| Sex | F | M | M | F | M | M | M | M | M | M | M | M | F | F | F | M | F | M | M | F | F | F | F |
| Maturity | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A |
| Age (years) | 7 | 7 | 7 | 8 | 6 | 6 | 7 | 7 | 9 | 7 | 8 | 7 | 8 | 8 | 8 | 8 | 9 | 9 | 9 | 12 | 11 | 9 | 11 |
| Radionuclides | | | | | | | | | | | | | | | | | | | | | | | |
| Lead-210 (Bq/g) | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | 0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| Polonium-210 (Bq/g) | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 |
| Radium-226 (Bq/g) | <0.00006 | <0.00006 | <0.00006 | 0.0003 | 0.00009 | <0.00006 | <0.00006 | <0.00005 | <0.00007 | <0.00005 | 0.0002 | 0.00007 | <0.00006 | <0.00006 | 0.00008 | <0.00004 | <0.00006 | <0.00005 | <0.00005 | <0.00005 | <0.00006 | <0.00006 | <0.00005 |
| Thorium-230 (Bq/g) | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | -0.00008 | <0.0001 | <0.00009 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 |

¹All concentrations are presented on a µg/g wet weight basis, unless specified otherwise.

GN = gill net; LT = lake trout; LW = lake whitefish; M = male; F = female; A = adult.

Appendix B, Table 1

Detailed fish flesh chemistry data for the EARMF community program, 2011 to 2016.

| Chemical ¹ | Wollaston Lake/Hatchet Lake (Welcome Bay, Wollaston Lake) | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|---|----------|----------|----------|----------|----------|--------|----------|--------|--------|----------|---------|---------|---------|---------|----------|----------|----------|----------|---------|----------|----------|----------|
| | Lake Whitefish | | | | | | | | | | | | | | | | | | | | | | |
| | 2011 | | | | | 2012 | | | | | 2013 | | | | | 2014 | | | | | 2016 | | |
| | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 | GN1-1 |
| LW06 | LW07 | LW08 | LW09 | LW10 | LW01 | LW02 | LW03 | LW04 | LW05 | LW01 | LW02 | LW03 | LW05 | LW06 | LW01 | LW02 | LW03 | LW05 | LW06 | LW04 | LW05 | LW06 | |
| Metals and Trace Elements | | | | | | | | | | | | | | | | | | | | | | | |
| Aluminum | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | 0.5 | <0.5 |
| Antimony | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| Arsenic | 0.24 | 0.13 | 0.17 | 0.09 | 0.18 | 0.19 | 0.12 | 0.17 | 0.16 | 0.13 | 0.15 | 0.18 | 0.17 | 0.09 | 0.14 | 0.14 | 0.15 | 0.11 | 0.11 | 0.06 | 0.13 | 0.18 | 0.03 |
| Barium | 0.11 | 0.01 | 0.01 | 0.02 | 0.02 | 0.02 | 0.02 | 0.04 | 0.02 | 0.02 | 0.02 | 0.01 | 0.12 | 0.05 | 0.03 | 0.02 | 0.02 | 0.04 | 0.08 | 0.02 | <0.01 | <0.01 | <0.01 |
| Beryllium | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 |
| Boron | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 |
| Cadmium | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 |
| Chromium | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Cobalt | <0.002 | <0.002 | <0.002 | 0.005 | <0.002 | <0.002 | <0.002 | 0.002 | <0.002 | 0.003 | <0.002 | <0.002 | <0.002 | 0.002 | <0.002 | 0.004 | 0.002 | 0.005 | <0.002 | 0.002 | 0.003 | 0.004 | 0.003 |
| Copper | 0.26 | 0.16 | 0.18 | 0.12 | 0.14 | 0.12 | 0.18 | 0.13 | 0.14 | 0.21 | 0.13 | 0.16 | 0.16 | 0.14 | 0.13 | 0.17 | 0.17 | 0.14 | 0.14 | 0.14 | 0.15 | 0.45 | 0.19 |
| Iron | 2.2 | 1.3 | 1.5 | 3.1 | 1.4 | 1.1 | 1.0 | 1.5 | 1.0 | 3.0 | 1.8 | 1.7 | 2.5 | 3.0 | 1.7 | 1.7 | 1.5 | 2 | 2.9 | 1.6 | 2.9 | 5.9 | 2.5 |
| Lead | 0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | 0.002 | 0.002 | 0.004 | 0.004 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 |
| Manganese | 0.15 | 0.09 | 0.09 | 0.12 | 0.1 | 0.09 | 0.07 | 0.14 | 0.1 | 0.13 | 0.11 | 0.09 | 0.1 | 0.25 | 0.11 | 0.12 | 0.1 | 0.11 | 0.24 | 0.1 | 0.12 | 0.11 | 0.1 |
| Mercury | 0.06 | 0.05 | 0.05 | 0.05 | 0.08 | 0.03 | 0.02 | 0.07 | 0.03 | 0.05 | 0.02 | 0.02 | 0.06 | 0.07 | 0.03 | 0.086 | 0.094 | 0.11 | 0.07 | 0.082 | 0.063 | 0.059 | 0.12 |
| Molybdenum | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| Nickel | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | 0.02 | <0.01 | <0.01 | 0.01 | <0.01 | 0.01 | 0.02 | 0.01 | 0.01 | <0.01 | <0.01 | <0.01 | 0.01 |
| Selenium | 0.39 | 0.41 | 0.34 | 0.38 | 0.38 | 0.5 | 0.53 | 0.38 | 0.68 | 0.51 | 0.31 | 0.34 | 0.32 | 0.41 | 0.4 | 0.44 | 0.34 | 0.36 | 0.39 | 0.36 | 1 | 0.41 | 0.24 |
| Silver | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 |
| Strontium | 0.47 | 0.08 | 0.11 | 0.24 | 0.14 | 0.11 | 0.13 | 0.25 | 0.15 | 0.18 | 0.16 | 0.12 | 0.14 | 0.62 | 0.21 | 0.15 | 0.15 | 0.16 | 0.54 | 0.11 | 0.1 | 0.09 | 0.14 |
| Thallium | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Tin | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Titanium | 0.07 | 0.08 | 0.08 | 0.11 | 0.08 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.04 | 0.04 | 0.03 | 0.03 | 0.04 | 0.1 | 0.07 | 0.08 | 0.09 | 0.08 | 0.02 | 0.01 | 0.01 |
| Uranium | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | 0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| Vanadium | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| Zinc | 5.1 | 3.0 | 3.8 | 4.7 | 4.3 | 3.7 | 4.5 | 3.2 | 4.5 | 4.0 | 3.7 | 3.7 | 5.5 | 3.3 | 3.6 | 4.9 | 3.3 | 4.1 | 2.8 | 2.9 | 3.5 | 3.6 | 7.7 |
| Physical Properties | | | | | | | | | | | | | | | | | | | | | | | |
| Moisture (%) | 73.6 | 75.29 | 75.27 | 76.01 | 73.6 | 73.9 | 70.19 | 74.68 | 71.83 | 76.61 | 73.91 | 73.39 | 75.49 | 79.53 | 78.4 | 71.26 | 72.78 | 76.4 | 76.45 | 79.18 | 77.36 | 76.23 | 77.69 |
| Length (cm) | 36.5 | 38.0 | 40.6 | 36.9 | 39.2 | 47.9 | 43.3 | 46.2 | 44.4 | 43.6 | 36.2 | 37.4 | 37.5 | 39.5 | 40.1 | 43.4 | 37.9 | 42.4 | 38.6 | 41.9 | 38.7 | 40.5 | 39.7 |
| Weight (g) | 780 | 820 | 940 | 810 | 825 | 1380 | 880 | 1060 | 860 | 840 | 620 | 620 | 640 | 700 | 720 | 1230 | 850 | 930 | 950 | 1010 | 700 | 920 | 1020 |
| Sex | M | M | M | M | F | M | F | F | F | M | M | F | F | F | M | M | F | M | F | M | M | M | M |
| Maturity | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A |
| Age (years) | 16 | 16 | 14 | 12 | 17 | 19 | 11 | 21 | 12 | 18 | 12 | 12 | 15 | 13 | 18 | 12 | 13 | 18 | 13 | 10 | 17 | 14 | 9 |
| Radionuclides | | | | | | | | | | | | | | | | | | | | | | | |
| Lead-210 (Bq/g) | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.004 | <0.001 | <0.004 | <0.004 | 0.0003 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| Polonium-210 (Bq/g) | 0.0003 | 0.0004 | <0.0002 | 0.0002 | 0.0004 | <0.0002 | <0.001 | <0.0002 | <0.001 | <0.001 | <0.001 | <0.0002 | <0.0002 | 0.0002 | 0.0006 | 0.0005 | <0.0002 | 0.0004 | 0.0002 | 0.0003 | 0.0008 | <0.0002 | 0.0002 |
| Radium-226 (Bq/g) | <0.00006 | <0.00006 | <0.00008 | <0.00006 | <0.00006 | <0.00006 | 0.001 | <0.00005 | 0.002 | 0.002 | <0.001 | 0.0001 | <0.0001 | 0.0001 | 0.0001 | <0.00006 | <0.00006 | <0.00006 | <0.00006 | 0.0001 | <0.00006 | <0.00006 | <0.00006 |
| Thorium-230 (Bq/g) | <0.0001 | <0.0001 | <0.0002 | <0.0001 | <0.0001 | <0.0001 | <0.002 | <0.0001 | <0.002 | <0.002 | <0.00002 | <0.0001 | <0.0002 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 |

¹All concentrations are presented on a µg/g wet weight basis, unless specified otherwise.

GN = gill net; LT = lake trout; LW = lake whitefish; M = male; F = female; A = adult.

Appendix B, Table 2

Detailed blueberry chemistry results for the EARMP community program, 2011 to 2016.

| Chemical ¹ | Black Lake | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|------------|--------|--------|--------|---------|----------|--------|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|---------|--------|--------|--------|
| | 2011 | | | | | 2012 | | | | | 2013 | | | | | 2014 | | | | | 2015 | | | 2016 | | |
| | 1 | 2 | 3 | 4 | 5 | 1 | 2 | 3 | 4 | 5 | 1 | 2 | 3 | 4 | 5 | 1 | 2 | 3 | 4 | 5 | 1 | 2 | 3 | 1 | 2 | 3 |
| Metals and Trace Elements | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Aluminum | 6 | 8.6 | 7.9 | 8.6 | 6 | 13 | 6 | 7.1 | 7.9 | 7.7 | 11 | 7.1 | 11 | 8.9 | 7.8 | 19 | 16 | 12 | 12 | 12 | 45 | 19 | 5.7 | 6.8 | 13 | 7.7 |
| Antimony | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Arsenic | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| Barium | 12 | 15 | 13 | 11 | 15 | 13 | 14 | 17 | 15 | 15 | 11 | 12 | 14 | 14 | 7 | 21 | 18 | 24 | 22 | 24 | 14 | 15 | 12 | 16 | 18 | 12 |
| Beryllium | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Boron | 6 | 5 | 5 | 3 | 5 | 6 | 8 | 5 | 5 | 7 | 8 | 4 | 7 | 5 | 13 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 6 | 5 | 4 | 3 |
| Cadmium | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | 0.02 | <0.01 | 0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Chromium | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| Cobalt | 0.05 | 0.01 | <0.01 | 0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | 0.01 | <0.01 | <0.01 | <0.01 | <0.01 | 0.02 | 0.02 | 0.01 | 0.01 | 0.01 | 0.03 | 0.02 | <0.01 | 0.02 | 0.02 | 0.01 |
| Copper | 3.3 | 3.2 | 2.5 | 2.6 | 3.1 | 2.8 | 3.8 | 3.5 | 3.4 | 3.8 | 3.2 | 1.8 | 1.8 | 1.8 | 1.6 | 3.7 | 3.6 | 4 | 3.6 | 4 | 3.5 | 3.4 | 3.4 | 2.7 | 3.6 | 2.6 |
| Iron | 8.4 | 11 | 8.6 | 11 | 10 | 20 | 10 | 8.1 | 8.8 | 9.8 | 10 | 6 | 8 | 8 | 5 | 31 | 21 | 18 | 18 | 17 | 51 | 22 | 10 | 11 | 16 | 12 |
| Lead | 0.07 | 0.02 | 0.02 | 0.07 | <0.01 | 0.03 | <0.01 | <0.01 | 0.02 | <0.01 | 0.02 | 0.02 | <0.01 | 0.02 | <0.01 | 0.03 | 0.03 | 0.02 | 0.02 | <0.01 | 0.02 | 0.01 | <0.01 | 0.13 | 0.02 | <0.01 |
| Manganese | 160 | 130 | 120 | 180 | 220 | 100 | 100 | 170 | 170 | 120 | 160 | 220 | 200 | 250 | 160 | 220 | 200 | 89 | 98 | 83 | 300 | 390 | 200 | 150 | 139 | 182 |
| Molybdenum | 0.2 | 0.2 | 0.1 | 0.1 | 0.2 | <0.1 | <0.1 | <0.1 | <0.1 | 0.1 | 0.1 | 0.1 | 0.2 | 0.1 | <0.1 | <0.1 | <0.1 | 0.2 | 0.2 | 0.2 | 0.2 | 0.1 | 0.1 | 0.3 | 0.2 | 0.2 |
| Nickel | 0.66 | 0.68 | 0.54 | 0.56 | 0.38 | 0.32 | 0.56 | 0.58 | 0.66 | 0.54 | 0.58 | 0.38 | 0.41 | 0.37 | 0.34 | 0.47 | 0.55 | 0.78 | 0.59 | 0.72 | 0.69 | 0.6 | 0.28 | 0.49 | 0.68 | 0.46 |
| Selenium | <0.05 | 0.08 | <0.05 | <0.05 | 0.06 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| Silver | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Strontium | 2.1 | 4.4 | 3.5 | 2.1 | 1.2 | 1.1 | 1.7 | 1.7 | 2 | 1.8 | 1.7 | 1.8 | 3 | 2 | 2 | 3.7 | 3.6 | 11 | 9.8 | 9.9 | 1.5 | 1.6 | 0.9 | 1.5 | 3 | 1.2 |
| Thallium | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| Tin | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| Titanium | <0.05 | 0.08 | 0.06 | 0.1 | 0.15 | 0.1 | 0.05 | 0.05 | 0.08 | <0.05 | 0.11 | <0.05 | 0.12 | 0.07 | 0.06 | 0.69 | 0.52 | 0.23 | 0.22 | 0.34 | 3.4 | 0.98 | 0.2 | 0.1 | 0.29 | 0.1 |
| Uranium | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | 0.01 | <0.01 | 0.01 | 0.03 | 0.02 | 0.02 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Vanadium | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Zinc | 4.8 | 6.1 | 5 | 3.9 | 5.5 | 3.9 | 6.1 | 6 | 5.3 | 6.4 | 5.8 | 6.2 | 6.7 | 7 | 3.6 | 8.8 | 7.1 | 6.2 | 5.7 | 5.7 | 5.6 | 5.1 | 4.8 | 6.4 | 6.7 | 5.8 |
| Physical Properties | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Moisture (%) | 86.24 | 86.69 | 85.12 | 86.04 | 87.39 | 86.19 | 85.89 | 84.95 | 84.99 | 84.86 | 84.23 | 83.47 | 84.32 | 83.26 | 84.73 | 85.74 | 85.93 | 87.13 | 86.97 | 87.28 | 85.47 | 85.47 | 84.86 | 84.76 | 85.97 | 84.71 |
| Radionuclides | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lead-210 (Bq/g) | 0.009 | 0.005 | 0.007 | 0.009 | 0.012 | 0.002 | 0.002 | <0.001 | 0.002 | <0.001 | 0.002 | <0.001 | 0.002 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | 0.002 | <0.001 | 0.003 | 0.001 | 0.002 | <0.001 | 0.002 | 0.001 |
| Polonium-210 (Bq/g) | 0.001 | 0.002 | 0.001 | 0.002 | <0.0009 | 0.0015 | 0.002 | 0.0024 | 0.0014 | 0.0012 | 0.0008 | 0.0008 | 0.0005 | 0.0008 | 0.0008 | 0.0007 | 0.0007 | 0.0011 | 0.0005 | 0.0007 | 0.0017 | 0.0014 | 0.0014 | 0.0008 | 0.0006 | 0.0007 |
| Radium-226 (Bq/g) | 0.002 | 0.004 | 0.004 | 0.002 | 0.002 | <0.00003 | 0.0012 | <0.00003 | 0.0028 | 0.001 | 0.0025 | 0.0042 | 0.0029 | 0.0028 | 0.0022 | 0.002 | 0.0008 | 0.001 | 0.001 | 0.002 | 0.0059 | 0.0066 | 0.0022 | 0.002 | 0.002 | 0.001 |
| Thorium-230 (Bq/g) | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.001 | 0.002 | <0.001 | <0.001 | <0.001 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | 0.0009 | <0.0005 | <0.0005 | <0.001 | <0.001 | <0.001 |

¹All concentrations are in µg/g dry weight, unless specified otherwise.

Appendix B, Table 2

Detailed blueberry chemistry results for the EARMP community program, 2011 to 2016.

| Chemical ¹ | Fond du Lac | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|-------------|--------|--------|--------|--------|--------|--------|---------|--------|---------|--------|--------|--------|--------|--------|--------|--------|---------|---------|---------|--------|---------|---------|--------|--------|--------|
| | 2011 | | | | | 2012 | | | | | 2013 | | | | | 2014 | | | | | 2015 | | | 2016 | | |
| | 1 | 2 | 3 | 4 | 5 | 1 | 2 | 3 | 4 | 5 | 1 | 2 | 3 | 4 | 5 | 1 | 2 | 3 | 4 | 5 | 1 | 2 | 3 | 1 | 2 | 3 |
| Metals and Trace Elements | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Aluminum | 4.4 | 9.5 | 6.2 | 7 | 6.2 | 14 | 20 | 7.3 | 13 | 5.9 | 10 | 21 | 13 | 14 | 15 | 29 | 13 | 33 | 12 | 39 | 47 | 18 | 23 | 34 | 15 | 11 |
| Antimony | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Arsenic | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| Barium | 12 | 12 | 13 | 13 | 12 | 12 | 9.9 | 14 | 11 | 11 | 14 | 14 | 16 | 18 | 15 | 20 | 16 | 22 | 14 | 29 | 18 | 14 | 18 | 16 | 27 | 19 |
| Beryllium | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Boron | 8 | 6 | 7 | 8 | 6 | 14 | 6 | 5 | 8 | 5 | 6 | 4 | 5 | 4 | 6 | 6 | 7 | 6 | 5 | 7 | 5 | 5 | 6 | 4 | 5 | 4 |
| Cadmium | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Chromium | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | 0.6 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| Cobalt | 0.01 | 0.02 | <0.01 | <0.01 | <0.01 | <0.01 | 0.02 | <0.01 | 0.02 | <0.01 | <0.01 | 0.02 | 0.02 | 0.02 | 0.01 | 0.05 | 0.03 | 0.05 | 0.03 | 0.06 | 0.03 | 0.02 | 0.02 | 0.03 | 0.01 | <0.01 |
| Copper | 2.7 | 3 | 3.6 | 3.2 | 3.9 | 2.8 | 3.9 | 3.3 | 3.9 | 2.8 | 1.8 | 2.4 | 2.8 | 1.8 | 2.1 | 5.2 | 5 | 5.6 | 5.2 | 5.6 | 3.9 | 3.8 | 3.1 | 4.6 | 4.2 | 3.7 |
| Iron | 10 | 8.2 | 9.7 | 11 | 9.3 | 14 | 21 | 12 | 16 | 10 | 10 | 23 | 17 | 17 | 10 | 48 | 23 | 40 | 22 | 44 | 54 | 18 | 22 | 30 | 20 | 14 |
| Lead | <0.01 | 0.02 | <0.01 | 0.03 | 0.01 | 0.03 | 0.01 | <0.01 | 0.01 | <0.01 | 0.04 | 0.02 | 0.02 | 0.01 | 0.02 | 0.02 | 0.03 | 0.17 | 0.14 | 0.04 | 0.04 | 0.01 | 0.03 | 0.03 | 0.02 | 0.02 |
| Manganese | 140 | 150 | 140 | 140 | 130 | 280 | 460 | 240 | 370 | 310 | 460 | 410 | 660 | 700 | 460 | 400 | 380 | 400 | 390 | 390 | 290 | 340 | 480 | 336 | 94 | 113 |
| Molybdenum | 0.4 | 0.2 | 0.4 | 0.4 | 0.4 | 0.2 | 0.2 | <0.1 | 0.2 | <0.1 | 0.2 | 0.3 | 0.3 | 0.3 | 0.2 | 0.5 | 0.5 | 0.6 | 0.4 | 0.6 | 0.3 | 0.3 | 0.2 | 0.4 | 1.4 | 1.1 |
| Nickel | 0.97 | 0.67 | 0.75 | 0.8 | 0.74 | 0.48 | 0.55 | 0.54 | 0.6 | 0.5 | 0.4 | 0.7 | 0.62 | 0.53 | 0.48 | 2.2 | 0.89 | 2.3 | 0.89 | 2.1 | 1.3 | 0.69 | 0.77 | 1.7 | 1.2 | 0.96 |
| Selenium | <0.05 | <0.05 | <0.05 | 0.08 | 0.07 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| Silver | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Strontium | 1.3 | 1.3 | 1.4 | 1.6 | 1.3 | 2.8 | 1.8 | 1.8 | 2.6 | 1.6 | 1.8 | 2.4 | 1.8 | 1.8 | 2 | 6.4 | 2.5 | 6.3 | 1.9 | 5 | 4.4 | 2.6 | 2.5 | 3.1 | 3.8 | 2.5 |
| Thallium | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| Tin | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | 0.09 | <0.05 | 0.07 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | 0.15 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| Titanium | <0.05 | 0.08 | 0.08 | 0.08 | 0.1 | 0.35 | 0.88 | 0.07 | 0.42 | 0.05 | 0.21 | 0.86 | 0.43 | 0.4 | 0.21 | 1.5 | 0.46 | 2 | 0.33 | 1.7 | 3.3 | 0.76 | 0.77 | 1.2 | 0.49 | 0.19 |
| Uranium | <0.01 | 0.02 | <0.01 | <0.01 | 0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | 0.01 | <0.01 | 0.01 | 0.01 | 0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Vanadium | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Zinc | 5.6 | 6 | 7.5 | 7 | 7.1 | 4.4 | 5.1 | 10 | 5.4 | 5.8 | 6.7 | 6.2 | 7.1 | 8.4 | 6.4 | 7.7 | 7.7 | 8.6 | 6.5 | 8.2 | 6.6 | 6.6 | 7.4 | 7.9 | 7.9 | 6.5 |
| Physical Properties | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Moisture (%) | 87.10 | 85.50 | 86.68 | 84.60 | 86.31 | 83.99 | 83.87 | 84.56 | 83.79 | 84.11 | 84.33 | 83.47 | 84.18 | 84.47 | 83.71 | 84.83 | 82.79 | 84.76 | 82.2 | 84.79 | 86.12 | 86.14 | 86.17 | 83.54 | 82.53 | 82.76 |
| Radionuclides | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lead-210 (Bq/g) | <0.004 | 0.007 | 0.01 | 0.011 | 0.006 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.004 | 0.002 | <0.001 | 0.009 | 0.005 | <0.001 | <0.001 | 0.001 | 0.001 | <0.001 | 0.003 | 0.004 | 0.004 | 0.002 | <0.001 | <0.001 |
| Polonium-210 (Bq/g) | 0.001 | 0.002 | 0.001 | 0.004 | 0.002 | 0.0012 | 0.0009 | 0.0015 | 0.0012 | 0.0014 | 0.001 | 0.0066 | 0.0008 | 0.002 | <0.001 | 0.001 | 0.001 | 0.0008 | 0.0007 | 0.0018 | 0.001 | 0.0021 | 0.0032 | 0.0012 | 0.0007 | 0.0005 |
| Radium-226 (Bq/g) | 0.002 | 0.004 | 0.003 | 0.001 | 0.005 | 0.0023 | 0.0018 | 0.0026 | 0.0021 | 0.0026 | 0.003 | 0.0033 | 0.0038 | 0.006 | 0.005 | 0.001 | 0.004 | <0.0005 | 0.002 | 0.003 | 0.0022 | 0.0031 | 0.0038 | 0.003 | 0.002 | 0.004 |
| Thorium-230 (Bq/g) | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.001 | <0.001 | <0.0004 | <0.001 | <0.0003 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.001 | <0.001 | <0.0009 | <0.0009 | <0.0009 | 0.002 | <0.0005 | <0.0005 | <0.001 | <0.001 | <0.001 |

¹All concentrations are in µg/g dry weight, unless specified otherwise.

Appendix B, Table 2

Detailed blueberry chemistry results for the EARMP community program, 2011 to 2016.

| Chemical ¹ | Stony Rapids | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--------------|--------|--------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|--------|--------|--------|--------|---------|--------|---------|---------|---------|--------|
| | 2011 | | | | | 2012 | | | | | 2013 | | | | | 2014 | | | | | 2015 | | | 2016 | | |
| | 1 | 2 | 3 | 4 | 5 | 1 | 2 | 3 | 4 | 5 | 1 | 2 | 3 | 4 | 5 | 1 | 2 | 3 | 4 | 5 | 1 | 2 | 3 | 1 | 2 | 3 |
| Metals and Trace Elements | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Aluminum | 21 | 8 | 27 | 37 | 10 | 9.6 | 8.9 | 7 | 11 | 7.6 | 300 | 180 | 250 | 240 | 250 | 7.8 | 9.3 | 10 | 8.3 | 8.9 | 22 | 18 | 9.5 | 13 | 16 | 18 |
| Antimony | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Arsenic | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| Barium | 15 | 15 | 16 | 8.9 | 13 | 14 | 12 | 12 | 10 | 13 | 10 | 9 | 13 | 14 | 13 | 22 | 21 | 21 | 18 | 21 | 13 | 15 | 15 | 14 | 15 | 15 |
| Beryllium | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Boron | 12 | 5 | 4 | 3 | 4 | 5 | 4 | 11 | 14 | 6 | 4 | 4 | 4 | 5 | 5 | 4 | 5 | 5 | 5 | 16 | 5 | 5 | 7 | 12 | 5 | 5 |
| Cadmium | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | 0.02 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Chromium | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| Cobalt | 0.01 | 0.07 | 0.01 | 0.02 | 0.01 | 0.01 | 0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | 0.01 | 0.02 | 0.1 | <0.01 | 0.02 | <0.01 | <0.01 | 0.01 | 0.01 | 0.01 | 0.01 |
| Copper | 2.9 | 3.2 | 3 | 2.4 | 2.9 | 1.9 | 2 | 2.3 | 2.1 | 2 | 2.4 | 2.8 | 2.1 | 2.5 | 2.4 | 4.5 | 4.2 | 4.2 | 4 | 4.4 | 3.6 | 3.3 | 3.2 | 3 | 3.4 | 3.4 |
| Iron | 16 | 12 | 23 | 32 | 11 | 12 | 12 | 11 | 10 | 9.9 | 9.9 | 10 | 10 | 11 | 12 | 14 | 15 | 14 | 13 | 15 | 19 | 19 | 13 | 22 | 17 | 18 |
| Lead | 0.01 | <0.01 | 0.02 | 0.04 | <0.01 | 0.1 | <0.01 | 0.03 | 0.03 | <0.01 | <0.01 | 0.02 | <0.01 | <0.01 | 0.01 | <0.01 | 0.01 | <0.01 | 0.02 | 0.01 | 0.26 | 0.02 | 0.02 | 0.06 | 0.01 | 0.03 |
| Manganese | 140 | 100 | 130 | 70 | 180 | 290 | 250 | 230 | 240 | 260 | 210 | 200 | 270 | 340 | 300 | 130 | 150 | 140 | 270 | 140 | 130 | 150 | 220 | 229 | 337 | 357 |
| Molybdenum | 0.1 | 0.2 | <0.1 | <0.1 | <0.1 | 0.1 | <0.1 | 0.4 | 0.3 | 0.3 | 0.2 | 0.1 | <0.1 | <0.1 | 0.1 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | <0.1 | <0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| Nickel | 0.75 | 0.68 | 0.84 | 0.82 | 0.74 | 0.39 | 0.48 | 0.47 | 0.37 | 0.4 | 0.38 | 0.42 | 0.24 | 0.3 | 0.29 | 1.1 | 1.1 | 1.4 | 0.54 | 1 | 0.68 | 0.65 | 0.8 | 0.68 | 0.57 | 0.57 |
| Selenium | <0.05 | 0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| Silver | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | 0.02 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Strontium | 2.6 | 1.7 | 2.9 | 2.5 | 2 | 1.7 | 1.5 | 2.9 | 2.6 | 2.4 | 3.4 | 3 | 3.5 | 4.5 | 3.8 | 2.5 | 2.5 | 2.2 | 5.3 | 2.6 | 1.6 | 1.7 | 3.1 | 3 | 1.7 | 1.8 |
| Thallium | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| Tin | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | 0.07 | <0.05 | <0.05 | <0.05 |
| Titanium | 0.26 | 0.12 | 1.6 | 1.4 | 0.19 | 0.2 | 0.23 | 0.09 | 0.26 | 0.11 | 0.08 | 0.14 | 0.07 | 0.06 | 0.06 | 0.12 | 0.3 | 0.17 | 0.08 | 0.26 | 0.7 | 0.81 | 0.28 | 0.29 | 0.37 | 0.47 |
| Uranium | <0.01 | <0.01 | 0.02 | 0.01 | 0.02 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | 0.03 | 0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Vanadium | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Zinc | 5.8 | 6.4 | 5.1 | 4.9 | 5.3 | 3.3 | 3.7 | 4.9 | 3.4 | 4 | 5.9 | 5.8 | 5.9 | 7.6 | 6.4 | 5.2 | 5.2 | 5.5 | 6.1 | 5.3 | 5.2 | 5.4 | 5.6 | 5.5 | 6.7 | 6.6 |
| Physical Properties | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Moisture (%) | 85.84 | 85.47 | 84.14 | 85.08 | 86.57 | 85.35 | 85.14 | 84.42 | 85.08 | 84.82 | 85.92 | 85.78 | 86.59 | 86.18 | 86.45 | 86.37 | 86.04 | 86.1 | 86.52 | 86.16 | 86.67 | 86.62 | 86.11 | 85.76 | 83.59 | 83.88 |
| Radionuclides | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lead-210 (Bq/g) | <0.004 | 0.005 | 0.012 | 0.006 | <0.004 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | 0.007 | <0.004 | <0.004 | <0.004 | <0.004 | 0.001 | 0.001 | <0.001 | <0.001 | <0.001 | 0.003 | 0.002 | 0.002 | 0.002 | <0.001 | 0.002 |
| Polonium-210 (Bq/g) | 0.002 | 0.002 | 0.002 | 0.003 | 0.002 | 0.001 | <0.001 | 0.001 | 0.001 | <0.001 | <0.001 | <0.001 | 0.001 | <0.001 | 0.001 | <0.0002 | 0.0008 | 0.0007 | 0.0008 | 0.0006 | 0.0012 | 0.0014 | 0.0012 | 0.0011 | 0.0009 | 0.001 |
| Radium-226 (Bq/g) | 0.003 | 0.006 | 0.001 | <0.0009 | 0.001 | 0.003 | <0.001 | 0.003 | 0.003 | 0.004 | 0.015 | 0.014 | 0.016 | 0.012 | 0.015 | 0.003 | 0.002 | 0.002 | 0.013 | 0.002 | 0.004 | 0.0039 | 0.0018 | 0.002 | 0.002 | 0.001 |
| Thorium-230 (Bq/g) | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.0009 | <0.001 | <0.001 | <0.001 | <0.001 | <0.0005 | 0.0007 | <0.0005 | <0.0009 | <0.0009 | <0.001 |

¹All concentrations are in µg/g dry weight, unless specified otherwise.

Appendix B, Table 2

Detailed blueberry chemistry results for the EARMP community program, 2011 to 2016.

| Chemical ¹ | Wollaston Lake/Hatchet Lake | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|-----------------------------|--------|--------|--------|--------|--------|--------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|---------|---------|---------|---------|---------|--------|
| | 2011 | | | | | 2012 | | | | | 2013 | | | | | 2014 | | | | | 2015 | | | 2016 | | |
| | 1 | 2 | 3 | 4 | 5 | 1 | 2 | 3 | 4 | 5 | 1 | 2 | 3 | 4 | 5 | 1 | 2 | 3 | 4 | 5 | 1 | 2 | 3 | 1 | 2 | 3 |
| Metals and Trace Elements | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Aluminum | 6.1 | 3.9 | 8.7 | 6.2 | 5.9 | 14 | 20 | 12 | 26 | 22 | 7.4 | 6.8 | 6.8 | 6.7 | 7.3 | 11 | 11 | 10 | 12 | 12 | 28 | 13 | 16 | 13 | 10 | 15 |
| Antimony | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Arsenic | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| Barium | 16 | 17 | 15 | 14 | 15 | 10 | 9.9 | 7.7 | 16 | 16 | 13 | 13 | 11 | 12 | 10 | 21 | 19 | 15 | 22 | 18 | 17 | 13 | 14 | 20 | 13 | 22 |
| Beryllium | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Boron | 7 | 4 | 7 | 13 | 6 | 5 | 7 | 17 | 7 | 8 | 4 | 5 | 4 | 5 | 5 | 5 | 5 | 8 | 6 | 5 | 6 | 7 | 6 | 5 | 4 | 6 |
| Cadmium | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Chromium | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| Cobalt | 0.01 | <0.01 | <0.01 | <0.01 | <0.01 | 0.01 | <0.01 | 0.02 | 0.01 | <0.01 | 0.01 | <0.01 | <0.01 | 0.01 | <0.01 | 0.02 | 0.01 | 0.2 | 0.03 | 0.14 | 0.03 | 0.01 | 0.01 | 0.01 | 0.02 | 0.01 |
| Copper | 2.9 | 1.7 | 3 | 3 | 2.6 | 3.4 | 2.9 | 2.5 | 2.6 | 3.5 | 1.8 | 1.7 | 2.1 | 1.6 | 1.6 | 4.5 | 4.4 | 4.5 | 4.8 | 4.5 | 3.5 | 3.3 | 3.6 | 3.4 | 3.9 | 3.2 |
| Iron | 6.8 | 5.4 | 12 | 9.5 | 9 | 17 | 17 | 15 | 21 | 20 | 10 | 9 | 10 | 9 | 9 | 17 | 18 | 18 | 17 | 17 | 29 | 15 | 17 | 12 | 14 | 12 |
| Lead | 0.04 | <0.01 | 0.01 | <0.01 | <0.01 | <0.01 | 0.01 | 0.03 | 0.02 | 0.02 | 0.03 | <0.01 | 0.02 | <0.01 | <0.01 | <0.01 | 0.02 | 0.02 | <0.01 | 0.02 | 0.02 | 0.02 | 0.03 | 0.02 | 0.01 | 0.05 |
| Manganese | 270 | 290 | 300 | 290 | 260 | 150 | 160 | 110 | 180 | 190 | 150 | 140 | 150 | 140 | 150 | 100 | 81 | 90 | 84 | 59 | 160 | 170 | 180 | 88 | 317 | 118 |
| Molybdenum | <0.1 | <0.1 | <0.1 | 0.1 | 0.1 | 0.3 | 0.1 | 0.1 | 0.2 | 0.2 | 0.1 | <0.1 | 0.2 | <0.1 | <0.1 | 0.3 | 0.4 | 0.3 | 0.4 | 0.4 | 0.2 | 0.1 | 0.1 | 0.2 | 0.3 | 0.2 |
| Nickel | 0.66 | 0.28 | 0.59 | 0.5 | 0.59 | 0.66 | 0.44 | 0.68 | 0.5 | 0.68 | 0.23 | 0.19 | 0.24 | 0.19 | 0.24 | 1.1 | 0.92 | 1.2 | 1.3 | 1.5 | 1.6 | 0.82 | 0.94 | 0.69 | 0.59 | 0.56 |
| Selenium | <0.05 | <0.05 | 0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| Silver | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Strontium | 3.4 | 1.2 | 3.1 | 3.8 | 3.6 | 1.3 | 1.2 | 1.1 | 1.4 | 2.8 | 1.8 | 2.3 | 1.6 | 1.8 | 1.5 | 2.6 | 3.7 | 1.5 | 2.6 | 5.4 | 3.1 | 1.4 | 1.6 | 5.4 | 2.6 | 4.2 |
| Thallium | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| Tin | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| Titanium | <0.05 | 0.07 | 0.13 | 0.09 | 0.09 | 0.38 | 1.3 | 0.4 | 0.91 | 0.51 | 0.1 | 0.05 | 0.05 | 0.11 | 0.09 | 0.16 | 0.17 | 0.14 | 0.17 | 0.25 | 1.1 | 0.34 | 0.88 | 0.1 | 0.19 | 0.14 |
| Uranium | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | 0.02 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | 0.01 | 0.03 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Vanadium | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Zinc | 5.7 | 3 | 5.5 | 5.1 | 4.4 | 6.6 | 7.7 | 4.7 | 6.7 | 8 | 6.4 | 6 | 6.2 | 5.6 | 5.3 | 7.3 | 8.1 | 7.3 | 7.5 | 7.4 | 6 | 6.8 | 7 | 5.8 | 5.3 | 5.8 |
| Physical Properties | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Moisture (%) | 85.31 | 84.46 | 84.79 | 84.44 | 85.11 | 84.44 | 84.81 | 84.13 | 85.40 | 84.17 | 85.61 | 85.47 | 85.66 | 85.56 | 85.51 | 86.34 | 86.99 | 86.93 | 87.01 | 86.51 | 88 | 84.22 | 84.43 | 85.72 | 86.66 | 86.27 |
| Radionuclides | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lead-210 (Bq/g) | 0.005 | 0.009 | 0.008 | 0.01 | 0.004 | <0.001 | 0.001 | 0.001 | <0.001 | <0.01 | 0.008 | 0.002 | <0.002 | 0.012 | <0.004 | 0.001 | <0.001 | <0.001 | <0.001 | <0.001 | 0.004 | 0.002 | <0.001 | 0.004 | 0.004 | 0.003 |
| Polonium-210 (Bq/g) | 0.002 | 0.002 | 0.004 | 0.004 | 0.004 | 0.0012 | 0.0012 | 0.0008 | 0.0017 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | 0.002 | 0.0006 | 0.001 | 0.0005 | 0.0008 | 0.0007 | 0.0016 | 0.001 | 0.0014 | 0.0018 | 0.0011 | 0.0015 |
| Radium-226 (Bq/g) | <0.001 | 0.001 | <0.001 | 0.006 | <0.001 | 0.0024 | 0.0032 | 0.0032 | 0.0057 | 0.004 | 0.008 | 0.005 | 0.006 | 0.009 | 0.004 | 0.004 | 0.002 | 0.004 | 0.005 | 0.004 | 0.006 | 0.0046 | 0.0045 | 0.002 | <0.0005 | 0.003 |
| Thorium-230 (Bq/g) | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.001 | <0.001 | <0.0009 | <0.001 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.001 | <0.001 | <0.001 | <0.001 | <0.0009 | <0.0006 | <0.0005 | <0.0005 | <0.0009 | <0.001 | <0.001 |

¹All concentrations are in µg/g dry weight, unless specified otherwise.

Appendix B, Table 2

Detailed blueberry chemistry results for the EARMP community program, 2011 to 2016.

| Chemical ¹ | Camsell Portage | | | | | | | | | | | | Uranium City | | | | | | | | |
|----------------------------------|-----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|--------------|--------|--------|--------|--------|--------|--------|--------|--------|
| | 2012 | | | | | 2013 | | | | | 2014 | | 2012 | | | | | 2014 | | | |
| | 1 | 2 | 3 | 4 | 5 | 1 | 2 | 3 | 4 | 5 | 1 | 2 | 3 | 1 | 2 | 3 | 4 | 5 | 1 | 2 | 3 |
| Metals and Trace Elements | | | | | | | | | | | | | | | | | | | | | |
| Aluminum | 7.2 | 7.3 | 7 | 7.4 | 6 | 6.8 | 7.7 | 6.7 | 7.1 | 7.2 | 10 | 13 | 8.6 | 5.3 | 5.6 | 8.7 | 4.4 | 5.4 | 9.2 | 7.7 | 11 |
| Antimony | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Arsenic | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| Barium | 12 | 24 | 20 | 22 | 20 | 11 | 13 | 12 | 12 | 13 | 22 | 24 | 20 | 12 | 11 | 12 | 12 | 9.9 | 14 | 14 | 14 |
| Beryllium | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Boron | 5 | 8 | 8 | 8 | 6 | 4 | 4 | 4 | 4 | 4 | 5 | 6 | 5 | 8 | 8 | 9 | 6 | 7 | 3 | 4 | 3 |
| Cadmium | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Chromium | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| Cobalt | <0.01 | <0.01 | <0.01 | 0.02 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | 0.01 | <0.01 | 0.01 | <0.01 | 0.01 | <0.01 | 0.02 | <0.01 | <0.01 | 0.06 |
| Copper | 3.5 | 3 | 3.4 | 3.5 | 2.6 | 2.2 | 2.2 | 2.2 | 2.2 | 2.4 | 3.8 | 3.8 | 3.5 | 3.9 | 3.4 | 3.7 | 3.5 | 2.9 | 4.1 | 4.1 | 4.1 |
| Iron | 11 | 8.7 | 9.7 | 18 | 13 | 8 | 10 | 10 | 13 | 9 | 15 | 17 | 16 | 11 | 9.7 | 10 | 12 | 8.7 | 14 | 14 | 14 |
| Lead | <0.01 | 0.04 | <0.01 | <0.01 | <0.01 | 0.03 | 0.02 | 0.03 | <0.01 | 0.02 | 0.01 | 0.02 | 0.01 | 0.01 | 0.01 | 0.02 | 0.01 | <0.01 | <0.01 | 0.06 | 0.01 |
| Manganese | 280 | 490 | 490 | 480 | 580 | 350 | 390 | 360 | 380 | 360 | 430 | 470 | 370 | 280 | 330 | 280 | 200 | 140 | 430 | 440 | 450 |
| Molybdenum | 0.1 | 0.1 | 0.2 | 0.2 | 0.1 | 0.1 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.3 | 0.4 | <0.1 | 0.2 | 0.2 | 0.2 |
| Nickel | 0.44 | 0.37 | 0.6 | 0.79 | 0.44 | 0.12 | 0.17 | 0.16 | 0.14 | 0.14 | 0.36 | 0.36 | 0.39 | 0.54 | 0.47 | 0.58 | 0.44 | 0.51 | 0.37 | 0.41 | 0.5 |
| Selenium | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| Silver | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Strontium | 1.4 | 1.4 | 1.4 | 1.6 | 1.5 | 0.9 | 1 | 1 | 1 | 1.1 | 1.9 | 1.8 | 2 | 1.3 | 1.1 | 1.4 | 1.3 | 1.6 | 1.3 | 1.3 | 1.4 |
| Thallium | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| Tin | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| Titanium | 0.07 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | 0.06 | <0.05 | 0.15 | 0.21 | 0.14 | <0.05 | <0.05 | <0.05 | 0.05 | 0.05 | 0.17 | 0.13 | 0.21 |
| Uranium | 0.01 | 0.08 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | 0.01 | 0.01 | 0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | 0.01 | <0.01 |
| Vanadium | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Zinc | 13 | 6.5 | 8.9 | 8 | 5.9 | 6 | 6.7 | 5.6 | 8.4 | 6.2 | 7.6 | 7.8 | 6.9 | 6.3 | 5.9 | 6.2 | 6.3 | 4.2 | 6.7 | 6.5 | 6.4 |
| Physical Properties | | | | | | | | | | | | | | | | | | | | | |
| Moisture (%) | 83.98 | 85.16 | 84.30 | 84.62 | 85.57 | 84.78 | 84.99 | 84.99 | 84.76 | 84.82 | 84.37 | 84.9 | 83.77 | 84.40 | 83.99 | 84.04 | 85.06 | 84.43 | 89.62 | 89.29 | 89.56 |
| Radionuclides | | | | | | | | | | | | | | | | | | | | | |
| Lead-210 (Bq/g) | 0.001 | 0.004 | <0.001 | 0.001 | 0.002 | <0.004 | 0.013 | 0.004 | 0.008 | <0.004 | 0.002 | 0.002 | 0.002 | 0.002 | 0.004 | 0.003 | 0.002 | 0.02 | 0.001 | 0.005 | 0.002 |
| Polonium-210 (Bq/g) | 0.0014 | 0.0017 | 0.0013 | 0.001 | 0.0016 | <0.001 | 0.001 | <0.001 | <0.001 | <0.001 | 0.0018 | 0.0013 | 0.0012 | 0.0021 | 0.005 | 0.0032 | 0.0015 | 0.002 | 0.0031 | 0.003 | 0.0028 |
| Radium-226 (Bq/g) | 0.0025 | 0.0028 | 0.0025 | 0.0049 | 0.0045 | 0.003 | 0.002 | 0.002 | 0.004 | 0.003 | 0.003 | 0.004 | 0.003 | 0.0014 | 0.006 | 0.0016 | 0.1 | 0.001 | 0.0007 | 0.003 | 0.001 |
| Thorium-230 (Bq/g) | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.001 | <0.0009 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.002 | <0.001 | <0.001 | <0.001 |

¹All concentrations are in µg/g dry weight, unless specified otherwise.

Appendix B, Table 3

Detailed bog cranberry chemistry results for the EARMP community program, 2011 to 2016.

| Chemical ¹ | Camsell Portage | | | | | | | | | | | | |
|----------------------------------|-----------------|--------|--------|--------|--------|--------|---------|---------|---------|---------|--------|--------|--------|
| | 2011 | | | | | 2014 | | 2015 | | | 2016 | | |
| | 1 | 2 | 3 | 4 | 5 | 1 | 2 | 1 | 2 | 3 | 1 | 2 | 3 |
| Metals and Trace Elements | | | | | | | | | | | | | |
| Aluminum | 17 | 17 | 19 | 19 | 16 | 17 | 16 | 16 | 19 | 21 | 22 | 21 | 22 |
| Antimony | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Arsenic | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| Barium | 14 | 13 | 14 | 15 | 9.1 | 15 | 15 | 18 | 19 | 19 | 7.6 | 8.5 | 8.6 |
| Beryllium | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Boron | 9 | 8 | 8 | 10 | 9 | 6 | 5 | 10 | 6 | 6 | 6 | 7 | 6 |
| Cadmium | <0.01 | <0.01 | <0.01 | <0.01 | 0.01 | <0.01 | <0.01 | <0.01 | 0.01 | 0.01 | <0.01 | <0.01 | <0.01 |
| Chromium | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | 0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| Cobalt | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.02 | 0.01 | 0.02 | 0.01 | <0.01 | <0.01 |
| Copper | 4.5 | 4.2 | 4.8 | 4.9 | 3.6 | 4 | 4.3 | 4.3 | 3.8 | 4.8 | 3.6 | 3.6 | 3.7 |
| Iron | 9.7 | 9.7 | 10 | 10 | 11 | 15 | 14 | 16 | 12 | 13 | 9.3 | 8.8 | 9 |
| Lead | <0.01 | <0.01 | <0.01 | 0.01 | 0.02 | 0.02 | <0.01 | 0.03 | <0.01 | <0.01 | <0.01 | 0.02 | 0.01 |
| Manganese | 110 | 120 | 100 | 100 | 80 | 170 | 170 | 140 | 200 | 220 | 171 | 124 | 155 |
| Molybdenum | 0.1 | 0.1 | 0.2 | 0.2 | <0.1 | <0.1 | <0.1 | 0.2 | 0.1 | 0.2 | <0.1 | <0.1 | <0.1 |
| Nickel | 0.46 | 0.46 | 0.49 | 0.65 | 0.37 | 0.54 | 0.52 | 0.36 | 0.36 | 0.41 | 0.23 | 0.32 | 0.27 |
| Selenium | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| Silver | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Strontium | 2.3 | 2 | 2.1 | 2.5 | 1.8 | 2.3 | 2.3 | 3.1 | 3.8 | 4.5 | 1 | 1.2 | 1.1 |
| Thallium | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| Tin | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | 0.9 | <0.05 | 1.3 | <0.05 | <0.05 | <0.05 |
| Titanium | 0.06 | 0.06 | <0.05 | 0.08 | 0.17 | 0.08 | 0.08 | 0.1 | 0.11 | 0.12 | 0.07 | 0.22 | <0.05 |
| Uranium | 0.01 | <0.01 | 0.01 | <0.01 | 0.02 | <0.01 | 0.01 | 0.04 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Vanadium | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Zinc | 6.6 | 6.4 | 6.5 | 6.7 | 5.3 | 6.2 | 6.2 | 7.8 | 7.8 | 8 | 7.2 | 7 | 6.9 |
| Physical Properties | | | | | | | | | | | | | |
| Moisture (%) | 87.53 | 87.36 | 87.13 | 86.87 | 86.78 | 86.06 | 86.2 | 87.73 | 87.24 | 87.37 | 85.66 | 85.54 | 85.58 |
| Radionuclides | | | | | | | | | | | | | |
| Lead-210 (Bq/g) | 0.007 | 0.006 | 0.020 | 0.013 | 0.018 | 0.001 | <0.001 | 0.002 | 0.002 | 0.002 | 0.002 | 0.004 | 0.003 |
| Polonium-210 (Bq/g) | 0.003 | 0.002 | 0.001 | 0.002 | 0.003 | 0.0011 | 0.0011 | 0.0015 | 0.0014 | 0.0015 | 0.0009 | 0.0011 | 0.001 |
| Radium-226 (Bq/g) | 0.004 | 0.002 | 0.006 | 0.004 | 0.002 | 0.0008 | <0.0005 | 0.0016 | 0.0017 | 0.0007 | 0.002 | 0.002 | 0.002 |
| Thorium-230 (Bq/g) | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.001 | <0.001 | <0.0006 | <0.0005 | <0.0005 | <0.001 | <0.001 | <0.001 |

¹All concentrations are in µg/g dry weight, unless specified otherwise.

Appendix B, Table 3

Detailed bog cranberry chemistry results for the EARMP community program, 2011 to 2016.

| Chemical ¹ | Uranium City | | | | | | | | | | | | | | | |
|----------------------------------|--------------|--------|---------|---------|---------|--------|--------|--------|--------|--------|--------|--------|---------|--------|--------|--------|
| | 2011 | | | | | 2013 | | | | | 2014 | | 2015 | 2016 | | |
| | 1 | 2 | 3 | 4 | 5 | 1 | 2 | 3 | 4 | 5 | 1 | 2 | 1 | 1 | 2 | 3 |
| Metals and Trace Elements | | | | | | | | | | | | | | | | |
| Aluminum | 20 | 29 | 15 | 19 | 27 | 21 | 56 | 50 | 45 | 28 | 22 | 23 | 20 | 18 | 25 | 17 |
| Antimony | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Arsenic | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| Barium | 13 | 9.1 | 11 | 9.4 | 13 | 10 | 12 | 14 | 12 | 10 | 13 | 12 | 15 | 11 | 10 | 10 |
| Beryllium | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Boron | 10 | 9 | 8 | 14 | 10 | 18 | 16 | 15 | 7 | 5 | 6 | 6 | 9 | 6 | 4 | 7 |
| Cadmium | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | 0.02 | 0.02 | 0.02 | 0.02 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Chromium | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | 0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| Cobalt | 0.02 | 0.14 | 0.02 | 0.02 | 0.02 | 0.01 | 0.02 | 0.02 | 0.02 | 0.02 | 0.05 | 0.04 | <0.01 | 0.02 | 0.03 | 0.02 |
| Copper | 5.9 | 3.6 | 2.6 | 2.6 | 3.2 | 2.6 | 2.1 | 2.3 | 2.4 | 3.2 | 5.6 | 6.4 | 3.4 | 4.2 | 5.4 | 4.2 |
| Iron | 16 | 20 | 9.5 | 13 | 14 | 13 | 12 | 26 | 26 | 14 | 12 | 14 | 12 | 11 | 14 | 10 |
| Lead | 0.01 | 0.01 | 0.01 | 0.01 | 0.02 | 0.02 | 0.2 | 0.03 | 0.02 | 0.03 | 0.04 | 0.03 | 0.02 | 0.11 | 0.04 | 0.01 |
| Manganese | 150 | 110 | 300 | 210 | 220 | 210 | 150 | 100 | 81 | 100 | 160 | 160 | 90 | 158 | 103 | 120 |
| Molybdenum | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.2 | 0.2 | 0.1 | 0.7 | 0.1 | 0.7 |
| Nickel | 1.1 | 0.8 | 0.28 | 0.5 | 0.42 | 0.2 | 0.28 | 0.42 | 0.46 | 0.36 | 0.59 | 0.59 | 0.74 | 0.34 | 0.72 | 0.38 |
| Selenium | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| Silver | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Strontium | 3.4 | 2.5 | 2.5 | 2.4 | 1.8 | 2.1 | 2.2 | 2.2 | 2.1 | 1.5 | 1.6 | 1.5 | 3.7 | 1.9 | 1.3 | 2 |
| Thallium | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| Tin | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| Titanium | 0.07 | 0.47 | 0.06 | 0.18 | 0.14 | 0.11 | 0.56 | 0.6 | 0.7 | 0.33 | 0.16 | 0.11 | 0.19 | 0.1 | 0.14 | <0.05 |
| Uranium | 0.01 | 0.02 | <0.01 | 0.01 | <0.01 | <0.01 | 0.03 | <0.01 | <0.01 | <0.01 | 0.02 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Vanadium | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Zinc | 8.9 | 7.3 | 5.7 | 5.2 | 6.8 | 7.2 | 8.9 | 7.4 | 7 | 7 | 6.2 | 7.1 | 5.3 | 6.7 | 7.6 | 6.6 |
| Physical Properties | | | | | | | | | | | | | | | | |
| Moisture (%) | 88.39 | 87.69 | 87.22 | 86.9 | 87.44 | 84.89 | 85.4 | 85.63 | 85.57 | 85.84 | 86.38 | 86.63 | 85.92 | 85.2 | 86.48 | 84.88 |
| Radionuclides | | | | | | | | | | | | | | | | |
| Lead-210 (Bq/g) | 0.005 | 0.005 | 0.016 | 0.010 | 0.016 | 0.016 | 0.009 | <0.004 | <0.004 | <0.004 | 0.005 | 0.002 | 0.003 | 0.005 | 0.002 | 0.003 |
| Polonium-210 (Bq/g) | 0.003 | 0.003 | 0.013 | 0.002 | 0.005 | 0.002 | 0.001 | 0.001 | <0.001 | 0.001 | 0.0039 | 0.0036 | 0.0027 | 0.0024 | 0.0015 | 0.0013 |
| Radium-226 (Bq/g) | 0.002 | 0.007 | <0.0009 | <0.0009 | <0.0009 | <0.001 | 0.002 | 0.003 | 0.002 | 0.003 | 0.003 | 0.002 | 0.0034 | 0.0008 | 0.0008 | 0.0009 |
| Thorium-230 (Bq/g) | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.001 | <0.001 | <0.0005 | <0.001 | <0.001 | <0.001 |

¹All concentrations are in µg/g dry weight, unless specified otherwise.

Appendix B, Table 4

Detailed barren-ground caribou flesh chemistry results for the EARMP community program, 2012 to 2017.

| Chemical ¹ | Black Lake | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|------------|----------|----------|----------|----------|---------|---------|---------|---------|---------|----------|---------|----------|---------|---------|---------|---------|----------|---------|----------|----------|----------|
| | 2012 | | | | | 2013 | | | | | 2014 | | | | | 2015 | | | | | 2017 | |
| | 1 | 2 | 3 | 4 | 5 | 1 | 2 | 3 | 4 | 5 | 1 | 2 | 3 | 4 | 5 | 1 | 2 | 3 | 4 | 5 | 1 | 2 |
| Metals and Trace Elements | | | | | | | | | | | | | | | | | | | | | | |
| Aluminum | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | 0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | 0.5 | 0.6 | 1.2 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| Antimony | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | 0.04 | <0.02 | <0.02 | <0.02 | <0.02 | 0.06 | 0.04 | 0.38 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| Arsenic | 0.02 | 0.01 | 0.02 | 0.02 | 0.02 | 0.04 | 0.02 | 0.03 | 0.02 | 0.02 | 0.01 | 0.01 | 0.01 | <0.01 | <0.01 | 0.02 | 0.03 | 0.02 | 0.04 | 0.02 | 0.03 | 0.02 |
| Barium | 0.2 | 0.03 | 0.04 | 0.03 | 0.25 | 0.04 | 0.02 | 0.02 | 0.01 | <0.01 | 0.02 | 0.05 | 0.11 | 0.33 | 0.02 | 0.04 | 0.03 | 0.02 | 0.03 | 0.02 | 0.21 | 0.17 |
| Beryllium | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 |
| Boron | 0.7 | 0.2 | 0.6 | <0.2 | 0.9 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 |
| Cadmium | 0.002 | 0.004 | 0.002 | <0.002 | <0.002 | 0.004 | 0.003 | 0.002 | 0.006 | 0.005 | 0.002 | <0.002 | 0.003 | 0.005 | 0.004 | 0.002 | <0.002 | <0.002 | <0.002 | <0.002 | 0.003 | 0.005 |
| Chromium | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | 0.1 | <0.1 | <0.1 |
| Cobalt | 0.005 | 0.004 | 0.003 | 0.003 | 0.003 | 0.008 | 0.005 | 0.004 | 0.004 | 0.005 | <0.002 | 0.002 | 0.002 | <0.002 | 0.002 | 0.009 | 0.006 | 0.009 | 0.008 | 0.016 | 0.004 | 0.006 |
| Copper | 4.3 | 2.6 | 3.0 | 3.0 | 3.3 | 3.3 | 4.2 | 3.4 | 3.0 | 3.1 | 4.6 | 3.3 | 3.2 | 2.4 | 4.6 | 4.9 | 3.5 | 4.6 | 4.8 | 2.5 | 2.5 | 2.6 |
| Iron | 43 | 29 | 40 | 38 | 45 | 33 | 49 | 44 | 50 | 43 | 49 | 38 | 58 | 37 | 52 | 46 | 32 | 53 | 48 | 37 | 35 | 33 |
| Lead | 0.013 | <0.002 | 0.008 | <0.002 | 0.005 | 0.003 | 0.31 | 0.003 | 0.48 | 0.013 | <0.002 | 0.008 | 0.56 | 0.028 | 0.004 | 0.015 | 0.009 | 0.007 | 0.005 | 0.006 | 0.043 | 0.006 |
| Manganese | 0.45 | 0.29 | 0.35 | 0.38 | 0.42 | 0.28 | 0.53 | 0.34 | 0.3 | 0.26 | 0.48 | 0.56 | 0.48 | 0.34 | 0.42 | 0.49 | 0.34 | 0.54 | 0.48 | 0.3 | 0.24 | 0.32 |
| Molybdenum | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| Nickel | 0.01 | <0.01 | <0.01 | 0.02 | 0.02 | <0.01 | <0.01 | 0.02 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | 0.01 | 0.01 | <0.01 | 0.04 | 0.04 | 0.01 | <0.01 |
| Selenium | 0.15 | 0.2 | 0.21 | 0.19 | 0.2 | 0.15 | 0.27 | 0.18 | 0.2 | 0.18 | 0.24 | 0.15 | 0.21 | 0.17 | 0.21 | 0.22 | 0.18 | 0.24 | 0.22 | 0.18 | 0.17 | 0.18 |
| Silver | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 |
| Strontium | 0.03 | 0.03 | 0.02 | 0.02 | 0.03 | 0.05 | 0.04 | 0.03 | 0.03 | 0.03 | 0.03 | 0.06 | 0.12 | 0.27 | 0.05 | 0.04 | 0.03 | 0.02 | 0.02 | 0.03 | 0.07 | 0.04 |
| Thallium | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Tin | - | - | - | - | - | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Titanium | 0.08 | 0.08 | 0.07 | 0.07 | 0.08 | 0.09 | 0.11 | 0.08 | 0.08 | 0.08 | 0.06 | 0.1 | 0.07 | 0.1 | 0.09 | 0.07 | 0.07 | 0.07 | 0.07 | 0.06 | <0.01 | <0.01 |
| Uranium | <0.001 | <0.001 | <0.001 | <0.001 | 0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| Vanadium | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| Zinc | 17 | 31 | 21 | 16 | 29 | 26 | 29 | 33 | 30 | 32 | 19 | 21 | 23 | 30 | 20 | 14 | 23 | 15 | 15 | 46 | 35 | 46 |
| Physical Properties | | | | | | | | | | | | | | | | | | | | | | |
| Moisture (%) | 74.06 | 74.11 | 74.21 | 73.58 | 72.53 | 76.52 | 73.84 | 75.07 | 75.5 | 74.1 | 70.87 | 67.93 | 65.21 | 69.85 | 71.08 | 73.58 | 73.63 | 72.12 | 72.03 | 73.79 | 75.45 | 72.45 |
| Radionuclides | | | | | | | | | | | | | | | | | | | | | | |
| Lead-210 (Bq/g) | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | 0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | 0.002 | <0.001 | <0.001 | <0.001 | 0.001 | <0.001 | <0.001 |
| Polonium-210 (Bq/g) | 0.011 | 0.0095 | 0.0083 | 0.01 | 0.011 | 0.0007 | 0.0052 | 0.0065 | 0.0085 | 0.0094 | 0.023 | 0.014 | 0.013 | 0.015 | 0.012 | 0.019 | 0.014 | 0.015 | 0.016 | 0.013 | 0.0081 | 0.0063 |
| Radium-226 (Bq/g) | <0.00006 | <0.00006 | <0.00006 | <0.00006 | <0.00006 | 0.008 | <0.005 | <0.005 | <0.005 | <0.005 | <0.00006 | 0.0003 | <0.00006 | 0.0003 | 0.0001 | 0.0002 | 0.0002 | <0.00008 | 0.0001 | <0.00006 | <0.00007 | <0.00005 |
| Thorium-230 (Bq/g) | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0002 | <0.0001 | <0.0002 | <0.0001 | <0.0001 | <0.0001 | <0.0001 |

¹All concentrations are presented on a µg/g wet weight basis, unless specified otherwise.

Appendix B, Table 4

Detailed barren-ground caribou flesh chemistry results for the EARMP community program, 2012 to 2017.

| Chemical ¹ | Fond du Lac | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|-------------|--------|---------|----------|---------|----------|----------|----------|----------|----------|---------|----------|----------|----------|---------|---------|----------|---------|----------|----------|----------|
| | 2012 | | | | | 2013 | | | | | | 2014 | | | | | 2015 | | | 2017 | |
| | 1 | 2 | 3 | 4 | 5 | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 1 | 2 | 3 | 1 | 2 |
| Metals and Trace Elements | | | | | | | | | | | | | | | | | | | | | |
| Aluminum | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | 0.5 | <0.5 | <0.5 | 0.6 | <0.5 | <0.5 |
| Antimony | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| Arsenic | <0.01 | <0.01 | <0.01 | 0.02 | 0.02 | 0.01 | 0.01 | 0.02 | 0.02 | 0.02 | 0.01 | <0.01 | <0.01 | 0.03 | <0.01 | <0.01 | 0.01 | <0.01 | 0.01 | 0.03 | <0.01 |
| Barium | 0.08 | 0.02 | 0.03 | 0.04 | 0.02 | 0.05 | 0.14 | 0.11 | 0.08 | 0.12 | 0.32 | 0.01 | <0.01 | 0.02 | 0.02 | 0.04 | <0.01 | <0.01 | 0.18 | 0.04 | 0.17 |
| Beryllium | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 |
| Boron | 0.4 | 0.5 | 0.3 | 0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 |
| Cadmium | 0.004 | 0.002 | 0.003 | 0.002 | <0.002 | 0.004 | 0.002 | 0.005 | <0.002 | 0.003 | 0.14 | 0.004 | 0.004 | <0.002 | 0.003 | 0.002 | 0.004 | 0.004 | 0.008 | 0.004 | 0.004 |
| Chromium | 0.3 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Cobalt | 0.004 | 0.006 | 0.006 | 0.003 | 0.003 | 0.003 | <0.002 | 0.003 | 0.002 | 0.006 | 0.013 | 0.005 | 0.004 | 0.005 | 0.004 | <0.002 | 0.004 | 0.004 | 0.006 | 0.005 | 0.003 |
| Copper | 3.9 | 2.3 | 2.2 | 4.1 | 3.1 | 1.8 | 2.6 | 3.2 | 3.3 | 3.9 | 4.3 | 4.2 | 4.3 | 2.6 | 4 | 4.2 | 3.5 | 2.6 | 1.9 | 2.4 | 3.4 |
| Iron | 48 | 31 | 29 | 48 | 32 | 30 | 36 | 43 | 50 | 39 | 45 | 46 | 47 | 27 | 48 | 49 | 47 | 36 | 36 | 34 | 61 |
| Lead | 0.008 | <0.002 | <0.002 | <0.002 | <0.002 | 0.006 | 0.006 | 0.008 | <0.002 | 0.014 | 0.004 | 0.002 | <0.002 | <0.002 | 0.003 | <0.002 | <0.002 | <0.002 | 0.004 | 0.004 | 0.005 |
| Manganese | 0.39 | 0.26 | 0.25 | 0.43 | 0.32 | 0.24 | 0.26 | 0.33 | 0.37 | 0.53 | 0.8 | 0.38 | 0.35 | 0.32 | 0.39 | 0.44 | 0.41 | 0.33 | 0.29 | 0.21 | 0.31 |
| Molybdenum | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| Nickel | 0.08 | <0.01 | <0.01 | <0.01 | <0.01 | 0.01 | <0.01 | <0.01 | <0.01 | 0.01 | 0.02 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | 0.01 | <0.01 | <0.01 |
| Selenium | 0.15 | 0.15 | 0.15 | 0.18 | 0.15 | 0.12 | 0.13 | 0.16 | 0.2 | 0.14 | 0.34 | 0.19 | 0.17 | 0.17 | 0.18 | 0.22 | 0.19 | 0.17 | 0.16 | 0.15 | 0.2 |
| Silver | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 |
| Strontium | 0.07 | 0.05 | 0.06 | 0.05 | 0.03 | 0.06 | 0.07 | 0.07 | 0.05 | 0.08 | 0.14 | 0.04 | 0.04 | 0.03 | 0.05 | 0.05 | 0.03 | 0.04 | 0.07 | 0.04 | 0.09 |
| Thallium | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Tin | - | - | - | - | - | 0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Titanium | 0.08 | 0.08 | 0.07 | 0.08 | 0.09 | 0.08 | 0.05 | 0.09 | 0.08 | 0.08 | 0.08 | 0.06 | 0.13 | 0.12 | 0.05 | 0.13 | 0.07 | 0.07 | 0.08 | <0.01 | 0.02 |
| Uranium | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | 0.002 | <0.001 | <0.001 | <0.001 | 0.002 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| Vanadium | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| Zinc | 22 | 56 | 59 | 16 | 49 | 40 | 15 | 23 | 12 | 16 | 18 | 28 | 22 | 30 | 26 | 24 | 22 | 28 | 59 | 39 | 14 |
| Physical Properties | | | | | | | | | | | | | | | | | | | | | |
| Moisture (%) | 71.24 | 76.19 | 74.05 | 73.91 | 73.77 | 71.94 | 71.95 | 72.9 | 73.46 | 71.99 | 68.45 | 62.73 | 71.46 | 75.61 | 72.28 | 70.81 | 73.17 | 73 | 71.99 | 76.17 | 73.17 |
| Radionuclides | | | | | | | | | | | | | | | | | | | | | |
| Lead-210 (Bq/g) | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | 0.003 | 0.002 | 0.002 | <0.001 | <0.001 | 0.008 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| Polonium-210 (Bq/g) | 0.0042 | 0.0084 | 0.0098 | 0.0096 | 0.0021 | 0.015 | 0.015 | 0.015 | 0.016 | 0.016 | 0.021 | 0.012 | 0.012 | 0.011 | 0.01 | 0.014 | 0.0071 | 0.008 | 0.0075 | 0.0071 | 0.012 |
| Radium-226 (Bq/g) | <0.00005 | 0.0002 | 0.0001 | <0.00004 | 0.00008 | <0.00006 | <0.00006 | <0.00006 | <0.00007 | <0.00007 | 0.00009 | <0.00006 | <0.00006 | <0.00006 | 0.00007 | 0.00008 | <0.00006 | 0.00008 | <0.00006 | <0.00008 | <0.00009 |
| Thorium-230 (Bq/g) | <0.0001 | 0.0003 | <0.0002 | <0.00008 | <0.0001 | <0.0001 | <0.0001 | 0.0002 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0002 | <0.0002 |

¹All concentrations are presented on a µg/g wet weight basis, unless specified otherwise.

Appendix B, Table 4

Detailed barren-ground caribou flesh chemistry results for the EARMP community program, 2012 to 2017.

| Chemical ¹ | Camsell Portage | | Stony Rapids | | | | | | | | | | | | |
|----------------------------------|-----------------|---------|--------------|--------|--------|--------|--------|----------|----------|----------|----------|---------|---------|----------|---------|
| | 2013 | | 2013 | | | | | 2014 | | | 2015 | | | | |
| | 1 | 2 | 1 | 2 | 3 | 4 | 5 | 1 | 2 | 3 | 1 | 2 | 3 | 4 | 5 |
| Metals and Trace Elements | | | | | | | | | | | | | | | |
| Aluminum | <0.5 | <0.5 | <0.5 | 1.2 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| Antimony | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| Arsenic | <0.01 | <0.01 | 0.01 | 0.01 | 0.01 | 0.02 | 0.01 | 0.03 | 0.02 | 0.01 | 0.02 | 0.02 | 0.03 | 0.02 | 0.01 |
| Barium | 0.02 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | 0.02 | 0.04 | 0.12 | 0.03 | 0.01 | 0.02 | 0.02 | 0.01 |
| Beryllium | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 |
| Boron | <0.2 | <0.2 | <0.2 | 0.8 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 |
| Cadmium | 0.004 | 0.003 | 0.003 | 0.004 | 0.002 | 0.003 | 0.002 | <0.002 | 0.002 | 0.008 | 0.007 | <0.002 | <0.002 | 0.006 | 0.003 |
| Chromium | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | 0.2 | <0.1 | <0.1 | <0.1 | 0.1 | <0.1 |
| Cobalt | 0.002 | <0.002 | 0.006 | 0.003 | 0.004 | 0.004 | 0.003 | 0.004 | 0.002 | 0.003 | 0.005 | 0.004 | 0.002 | 0.005 | 0.004 |
| Copper | 3.7 | 3.7 | 4.0 | 4.6 | 4.7 | 3.3 | 4.1 | 2.4 | 3.4 | 1.8 | 2.4 | 4.3 | 3.6 | 3.8 | 3.5 |
| Iron | 50 | 46 | 52 | 55 | 46 | 51 | 55 | 38 | 38 | 40 | 34 | 43 | 46 | 47 | 50 |
| Lead | <0.002 | <0.002 | 0.002 | 0.065 | 0.009 | 0.003 | 0.004 | 0.005 | 0.052 | 0.032 | 0.004 | 0.002 | <0.002 | 0.009 | <0.002 |
| Manganese | 0.35 | 0.26 | 0.46 | 0.55 | 0.42 | 0.44 | 0.44 | 0.3 | 0.28 | 0.36 | 0.21 | 0.47 | 0.41 | 0.42 | 0.51 |
| Molybdenum | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| Nickel | <0.01 | <0.01 | <0.01 | <0.01 | 0.01 | <0.01 | <0.01 | 0.18 | <0.01 | 0.06 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Selenium | 0.23 | 0.22 | 0.21 | 0.26 | 0.21 | 0.21 | 0.21 | 0.16 | 0.14 | 0.11 | 0.17 | 0.18 | 0.22 | 0.2 | 0.19 |
| Silver | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 |
| Strontium | 0.04 | 0.04 | 0.02 | 0.03 | 0.02 | <0.02 | <0.02 | 0.05 | 0.04 | 0.17 | 0.03 | 0.02 | 0.03 | 0.04 | 0.03 |
| Thallium | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Tin | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Titanium | 0.08 | 0.07 | 0.03 | 0.12 | 0.2 | 0.09 | 0.11 | 0.13 | 0.04 | 0.08 | 0.07 | 0.07 | 0.06 | 0.08 | 0.07 |
| Uranium | <0.001 | <0.001 | 0.002 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | 0.002 | <0.001 | <0.001 | <0.001 | <0.001 |
| Vanadium | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| Zinc | 26 | 25 | 22 | 13 | 16 | 29 | 15 | 40 | 17 | 48 | 41 | 15 | 15 | 18 | 20 |
| Physical Properties | | | | | | | | | | | | | | | |
| Moisture (%) | 72.15 | 72.11 | 70.86 | 70.2 | 70 | 70.4 | 71 | 74.41 | 74.78 | 67.52 | 73.27 | 73.71 | 72.62 | 72.05 | 71.78 |
| Radionuclides | | | | | | | | | | | | | | | |
| Lead-210 (Bq/g) | <0.001 | <0.001 | <0.001 | 0.001 | <0.002 | <0.001 | <0.001 | <0.001 | 0.002 | <0.001 | <0.001 | <0.001 | 0.001 | <0.001 | <0.001 |
| Polonium-210 (Bq/g) | 0.017 | 0.015 | 0.026 | 0.001 | <0.001 | 0.012 | 0.025 | 0.0083 | 0.01 | 0.0059 | 0.013 | 0.017 | 0.025 | 0.033 | 0.02 |
| Radium-226 (Bq/g) | <0.00008 | <0.0001 | 0.002 | <0.001 | <0.001 | 0.002 | 0.001 | <0.00006 | <0.00006 | <0.00005 | <0.00007 | 0.0001 | 0.00008 | <0.00007 | 0.0001 |
| Thorium-230 (Bq/g) | <0.0002 | <0.0002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0002 | <0.0002 | <0.0001 | <0.0002 |

¹All concentrations are presented on a µg/g wet weight basis, unless specified otherwise.

Appendix B, Table 4

Detailed barren-ground caribou flesh chemistry results for the EARMP community program, 2012 to 2017.

| Chemical ¹ | Wollaston Lake/Hatchet Lake | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|-----------------------------|----------|----------|----------|----------|----------|----------|----------|---------|----------|----------|----------|---------|----------|---------|----------|----------|----------|---------|----------|----------|
| | 2012 | | | | | 2013 | | | | | 2014 | | | | | 2015 | | | | 2017 | |
| | 1 | 2 | 3 | 4 | 5 | 1 | 2 | 3 | 4 | 5 | 1 | 2 | 3 | 4 | 5 | 1 | 2 | 3 | 4 | 1 | 2 |
| Metals and Trace Elements | | | | | | | | | | | | | | | | | | | | | |
| Aluminum | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | 0.7 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | 0.6 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| Antimony | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | 0.03 | <0.02 | <0.02 | 0.02 | <0.02 |
| Arsenic | <0.01 | <0.01 | 0.01 | 0.02 | 0.02 | 0.02 | 0.02 | 0.01 | 0.01 | <0.01 | 0.02 | <0.01 | 0.01 | 0.02 | <0.01 | <0.01 | 0.01 | 0.02 | <0.01 | 0.03 | 0.03 |
| Barium | 0.04 | 0.09 | 0.03 | 0.04 | 0.09 | 0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | 0.02 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | 0.04 | 0.05 |
| Beryllium | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 |
| Boron | 0.4 | <0.2 | 0.4 | 0.3 | 0.4 | 0.3 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 |
| Cadmium | 0.005 | 0.008 | 0.002 | 0.004 | 0.002 | 0.008 | 0.003 | <0.002 | 0.004 | 0.003 | 0.002 | 0.002 | <0.002 | <0.002 | 0.003 | 0.003 | 0.003 | 0.005 | 0.027 | 0.004 | 0.004 |
| Chromium | 0.2 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Cobalt | 0.003 | 0.003 | 0.007 | 0.005 | 0.004 | 0.008 | 0.006 | 0.006 | 0.004 | 0.006 | 0.003 | 0.006 | <0.002 | 0.003 | 0.004 | 0.017 | 0.006 | 0.003 | 0.008 | 0.003 | 0.004 |
| Copper | 3.1 | 3.2 | 2.5 | 3.9 | 3.1 | 4.4 | 2.3 | 2.4 | 3.6 | 3.5 | 3.6 | 3.3 | 2.3 | 3.8 | 3.5 | 3.1 | 3 | 2.8 | 3.9 | 3 | 3.6 |
| Iron | 37 | 35 | 26 | 45 | 29 | 63 | 36 | 43 | 52 | 43 | 42 | 43 | 23 | 44 | 45 | 42 | 36 | 27 | 52 | 45 | 38 |
| Lead | 0.013 | 0.002 | <0.002 | 0.046 | 0.051 | 0.006 | 0.003 | 0.013 | 0.014 | <0.002 | <0.002 | <0.002 | 0.003 | 0.005 | <0.002 | <0.002 | 1.1 | <0.002 | <0.002 | 0.52 | 0.014 |
| Manganese | 0.35 | 0.29 | 0.25 | 0.53 | 0.33 | 0.46 | 0.27 | 0.29 | 0.5 | 0.44 | 0.31 | 0.37 | 0.21 | 0.37 | 0.41 | 0.39 | 0.29 | 0.29 | 0.4 | 0.33 | 0.39 |
| Molybdenum | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| Nickel | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | 0.02 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Selenium | 0.15 | 0.17 | 0.17 | 0.19 | 0.13 | 0.18 | 0.13 | 0.12 | 0.19 | 0.17 | 0.21 | 0.13 | 0.16 | 0.2 | 0.18 | 0.14 | 0.16 | 0.16 | 0.19 | 0.2 | 0.22 |
| Silver | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 |
| Strontium | 0.04 | 0.03 | 0.03 | 0.02 | 0.03 | 0.05 | 0.03 | 0.03 | 0.02 | <0.02 | 0.02 | 0.04 | 0.05 | 0.03 | 0.04 | 0.02 | 0.03 | 0.02 | 0.03 | 0.04 | <0.02 |
| Thallium | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Tin | - | - | - | - | - | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Titanium | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.11 | 0.09 | 0.11 | 0.08 | 0.09 | 0.03 | 0.06 | 0.06 | 0.07 | 0.11 | 0.06 | 0.06 | 0.06 | 0.06 | 0.01 | <0.01 |
| Uranium | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| Vanadium | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| Zinc | 33 | 30 | 30 | 20 | 29 | 16 | 52 | 42 | 20 | 16 | 16 | 20 | 18 | 13 | 23 | 33 | 29 | 23 | 19 | 43 | 38 |
| Physical Properties | | | | | | | | | | | | | | | | | | | | | |
| Moisture (%) | 74.5 | 73.6 | 75.2 | 74.14 | 75.2 | 72.82 | 78.45 | 77.45 | 73.98 | 72.58 | 75.58 | 74.52 | 75 | 74.43 | 73.43 | 76.77 | 73.74 | 74.44 | 68.86 | 74.15 | 74.87 |
| Radionuclides | | | | | | | | | | | | | | | | | | | | | |
| Lead-210 (Bq/g) | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | 0.002 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| Polonium-210 (Bq/g) | 0.016 | 0.013 | 0.011 | 0.015 | 0.011 | 0.011 | 0.012 | 0.0095 | 0.019 | 0.014 | 0.0082 | 0.0083 | 0.012 | 0.016 | 0.01 | 0.0079 | 0.0072 | 0.0047 | 0.0053 | 0.0075 | 0.0082 |
| Radium-226 (Bq/g) | <0.00006 | <0.00007 | <0.00006 | <0.00006 | <0.00005 | <0.00008 | <0.00006 | <0.00006 | 0.0001 | <0.00007 | <0.00008 | <0.00009 | 0.0002 | <0.00006 | 0.00007 | <0.00006 | <0.00005 | <0.00006 | 0.0001 | <0.00007 | <0.00007 |
| Thorium-230 (Bq/g) | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0002 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0002 | <0.0002 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 |

¹All concentrations are presented on a µg/g wet weight basis, unless specified otherwise.

Appendix B, Table 5

Detailed moose flesh chemistry results for the EARMP community program, 2011 to 2016.

| Chemical ¹ | Fond Du Lac | Stoney Rapids | Uranium City Study Area | | | | | | | | | | | | Camsell Portage Study Area | | | | | | | | | | |
|----------------------------------|-------------|---------------|-------------------------|-----------------|---------------|-----------|-----------|----------|---------------|---------|---------|----------|----------|---------|----------------------------|----------|----------|---------|----------|---------|---------|----------|----------|----------|---------|
| | 2016 | 2016 | 2011 | | | | 2012 | | | 2013 | | | 2014 | 2015 | 2016 | 2011 | | | | 2013 | | 2014 | | 2015 | |
| | | | Mackintosh Bay | Deadman Channel | Melville Lake | Orbit Bay | Ace Creek | Gunnar | Milliken Lake | 1 | 2 | 3 | 1 | 1 | 1 | 1 | 2 | 3 | 4 | 1 | 2 | 1 | 2 | 1 | 2 |
| Metals and Trace Elements | | | | | | | | | | | | | | | | | | | | | | | | | |
| Aluminum | 0.6 | 0.5 | 2.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | 0.6 | <0.5 | 0.6 | <0.5 | 0.5 | 1.5 | 3 | <0.5 | 3.8 | <0.5 | <0.5 | 0.6 | 4.4 | 5.1 | 0.5 |
| Antimony | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | 0.02 | <0.02 | <0.02 | <0.02 |
| Arsenic | <0.01 | 0.01 | <0.01 | <0.01 | 0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Barium | 0.05 | 0.06 | 0.03 | 0.02 | <0.01 | 0.02 | 0.04 | 0.22 | 0.08 | 0.02 | 0.09 | 0.02 | <0.01 | 0.04 | 0.1 | 0.04 | 0.15 | 0.03 | 0.02 | 0.05 | 0.02 | 0.07 | 0.04 | 0.05 | 0.02 |
| Beryllium | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 |
| Boron | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | 0.3 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 |
| Cadmium | 0.002 | 0.002 | 0.003 | <0.002 | 0.002 | 0.004 | 0.011 | 0.006 | 0.003 | 0.004 | 0.005 | 0.003 | 0.056 | 0.018 | 0.011 | <0.002 | 0.006 | 0.002 | <0.002 | 0.002 | 0.003 | 0.003 | 0.05 | 0.005 | 0.004 |
| Chromium | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Cobalt | 0.011 | 0.019 | 0.013 | 0.014 | 0.003 | 0.017 | 0.016 | 0.01 | 0.012 | 0.01 | 0.011 | 0.008 | 0.009 | 0.044 | 0.009 | 0.014 | 0.011 | 0.022 | 0.01 | 0.012 | 0.015 | 0.02 | 0.016 | 0.015 | 0.006 |
| Copper | 1.5 | 1.7 | 1.3 | 1.8 | 3.8 | 1.7 | 1.2 | 1.4 | 1.3 | 1.6 | 2 | 1.5 | 1.9 | 1.5 | 1.8 | 2.0 | 1.2 | 1.8 | 1.6 | 1.5 | 1.8 | 0.56 | 1.4 | 0.93 | 1.4 |
| Iron | 38 | 29 | 30 | 25 | 42 | 42 | 35 | 34 | 26 | 34 | 37 | 26 | 36 | 33 | 25 | 21 | 25 | 25 | 29 | 29 | 34 | 22 | 32 | 29 | 29 |
| Lead | 0.01 | 0.01 | <0.002 | <0.002 | <0.002 | <0.002 | 0.005 | 0.004 | 0.003 | 0.003 | 0.025 | 0.003 | 0.003 | 0.002 | 0.01 | 0.018 | 0.019 | <0.002 | 0.002 | 0.004 | <0.002 | 0.029 | 0.011 | 0.004 | <0.002 |
| Manganese | 0.22 | 0.24 | 0.16 | 0.16 | 0.33 | 0.14 | 0.17 | 0.18 | 0.15 | 0.14 | 0.24 | 0.14 | 0.22 | 0.23 | 0.16 | 0.2 | 0.18 | 0.21 | 0.13 | 0.13 | 0.16 | 0.38 | 0.27 | 0.2 | 0.18 |
| Molybdenum | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| Nickel | <0.01 | 0.02 | 0.01 | 0.02 | 0.02 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | 0.02 | 0.02 | 0.02 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | 0.02 | <0.01 |
| Selenium | 0.1 | 0.09 | 0.11 | 0.16 | 0.18 | 0.09 | 0.1 | 0.11 | 0.1 | 0.09 | 0.12 | 0.08 | 0.14 | 0.08 | 0.13 | 0.2 | 0.06 | 0.1 | 0.12 | 0.06 | 0.06 | 0.08 | 0.08 | 0.17 | 0.13 |
| Silver | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 |
| Strontium | 0.06 | 0.03 | <0.02 | <0.02 | 0.04 | 0.03 | 0.08 | 0.05 | 0.05 | 0.02 | 0.03 | 0.03 | 0.04 | 0.03 | 0.06 | 0.1 | 0.06 | 0.03 | 0.02 | 0.06 | 0.04 | 0.06 | 0.09 | 0.06 | 0.02 |
| Thallium | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Tin | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | 0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Titanium | 0.05 | 0.06 | 0.14 | 0.08 | 0.1 | 0.13 | 0.08 | 0.08 | 0.06 | 0.06 | 0.06 | 0.06 | 0.09 | 0.01 | 0.11 | 0.09 | 0.25 | 0.09 | 0.08 | 0.07 | 0.07 | 0.1 | 0.22 | 0.14 | <0.01 |
| Uranium | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | 0.001 | <0.001 | <0.001 | 0.003 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | 0.002 | 0.002 | <0.001 |
| Vanadium | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| Zinc | 53 | 49 | 50 | 49 | 31 | 49 | 75 | 56 | 55 | 44 | 48 | 56 | 52 | 52 | 35 | 24 | 38 | 47 | 45 | 59 | 45 | 63 | 58 | 61 | 48 |
| Physical Properties | | | | | | | | | | | | | | | | | | | | | | | | | |
| Moisture (%) | 75.66 | 73.9 | 74.42 | 72.36 | 72.74 | 73.84 | 69.87 | 74.09 | 74.28 | 74.01 | 71.23 | 74.71 | 75.54 | 76.93 | 76.46 | 75.01 | 73.92 | 75.02 | 75.12 | 73.27 | 72.65 | 73.14 | 70.99 | 73.2 | 74.63 |
| Radionuclides | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lead-210 (Bq/g) | <0.001 | <0.001 | 0.002 | <0.001 | <0.001 | <0.001 | <0.00002 | <0.00001 | <0.00002 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.0003 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| Polonium-210 (Bq/g) | 0.0003 | 0.0006 | <0.0002 | 0.0005 | 0.0023 | 0.0003 | 0.0002 | 0.0004 | <0.0002 | 0.0004 | 0.0005 | 0.0003 | 0.0016 | 0.001 | 0.0008 | 0.0019 | 0.0004 | 0.0003 | - | 0.0004 | 0.0002 | 0.0004 | <0.0002 | 0.0011 | 0.0005 |
| Radium-226 (Bq/g) | <0.00005 | <0.00007 | <0.00006 | <0.0001 | <0.00006 | <0.00007 | <0.00009 | <0.00006 | <0.00008 | 0.00008 | 0.0001 | <0.00005 | <0.00005 | 0.00006 | <0.00009 | <0.00008 | <0.00007 | 0.0002 | <0.00006 | 0.00006 | 0.00007 | <0.00006 | <0.00006 | 0.00005 | 0.00008 |
| Thorium-230 (Bq/g) | <0.0001 | <0.0001 | <0.0001 | <0.0002 | <0.0001 | <0.0001 | <0.0002 | 0.0001 | <0.0002 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0002 | <0.0002 | <0.0001 | <0.0001 | - | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.00009 | <0.0001 |

¹All concentrations are presented on a µg/g wet weight basis, unless specified otherwise.

Appendix B, Table 6

Detailed snowshoe hare flesh chemistry results for the EARMP community program, 2011 to 2014.

| Chemical ¹ | Uranium City | | | | | | | Camsell Portage | | | | | | | |
|----------------------------------|--------------|----------|----------|----------|----------|----------|----------|-----------------|----------|----------|----------|----------|----------|----------|----------|
| | 2011 | | | | | 2014 | | 2011 | | | | | 2014 | | |
| | Sample 1 | Sample 2 | Sample 3 | Sample 4 | Sample 5 | Sample 1 | Sample 2 | Sample 1 | Sample 2 | Sample 3 | Sample 4 | Sample 5 | Sample 1 | Sample 2 | Sample 3 |
| Metals and Trace Elements | | | | | | | | | | | | | | | |
| Aluminum | 0.6 | <0.5 | <0.5 | 0.5 | <0.5 | <0.5 | 0.5 | 0.6 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| Antimony | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| Arsenic | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | 0.02 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Barium | 0.27 | 0.05 | 0.09 | 0.04 | 0.05 | 0.13 | 0.28 | 0.09 | 0.04 | 0.08 | 0.03 | 0.08 | 0.18 | 0.1 | 0.12 |
| Beryllium | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 |
| Boron | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | 0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 |
| Cadmium | 0.004 | <0.002 | 0.003 | 0.003 | <0.002 | <0.002 | 0.005 | 0.003 | 0.004 | 0.01 | <0.002 | 0.002 | <0.002 | 0.004 | 0.006 |
| Chromium | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | 0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Cobalt | 0.007 | 0.005 | 0.004 | 0.004 | 0.006 | 0.005 | 0.004 | 0.01 | 0.006 | 0.007 | 0.003 | 0.004 | <0.002 | 0.005 | 0.032 |
| Copper | 1.5 | 1.5 | 1 | 1.4 | 1.1 | 2.4 | 2.1 | 1.8 | 2.4 | 1.5 | 1.8 | 1.5 | 1.9 | 2.1 | 1.8 |
| Iron | 27 | 22 | 22 | 14 | 20 | 21 | 31 | 31 | 28 | 24 | 22 | 24 | 19 | 25 | 20 |
| Lead | <0.002 | 0.003 | <0.002 | <0.002 | 0.003 | 0.002 | <0.002 | 0.003 | <0.002 | 0.006 | <0.002 | <0.002 | 0.003 | 0.002 | 0.002 |
| Manganese | 0.27 | 0.2 | 0.37 | 0.29 | 0.18 | 0.24 | 1.1 | 0.72 | 0.46 | 0.32 | 0.22 | 0.22 | 0.36 | 0.28 | 0.39 |
| Molybdenum | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| Nickel | 0.01 | 0.02 | <0.01 | <0.01 | <0.01 | 0.02 | 0.05 | 0.03 | 0.02 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | 0.07 |
| Selenium | 0.13 | 0.05 | 0.1 | 0.12 | 0.06 | 0.15 | 0.07 | 0.04 | 0.03 | 0.13 | 0.02 | 0.06 | 0.03 | 0.08 | 0.14 |
| Silver | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 |
| Strontium | 0.39 | 0.1 | 0.28 | 0.1 | 0.19 | 0.14 | 0.19 | 0.27 | 0.07 | 0.22 | 0.05 | 0.09 | 0.2 | 0.1 | 0.29 |
| Thallium | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Tin | 0.02 | <0.01 | 0.02 | 0.02 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | 0.04 | 0.02 | 0.02 | <0.01 | <0.01 | <0.01 |
| Titanium | 0.07 | 0.04 | 0.07 | 0.08 | 0.15 | 0.05 | 0.1 | 0.08 | 0.07 | 0.05 | 0.08 | 0.04 | 0.09 | 0.06 | 0.09 |
| Uranium | 0.002 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| Vanadium | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| Zinc | 25 | 24 | 17 | 10 | 19 | 10 | 16 | 14 | 11 | 23 | 13 | 13 | 13 | 11 | 16 |
| Physical Properties | | | | | | | | | | | | | | | |
| Moisture (%) | 77.55 | 77.14 | 77.49 | 78.65 | 78.51 | 70.07 | 65.8 | 77.61 | 76.53 | 75.79 | 77.6 | 78.45 | 71.24 | 75.39 | 73.89 |
| Radionuclides | | | | | | | | | | | | | | | |
| Lead-210 (Bq/g) | <0.001 | <0.001 | <0.001 | <0.002 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| Polonium-210 (Bq/g) | 0.0014 | 0.0013 | 0.0015 | 0.00003 | 0.0016 | 0.0022 | 0.0015 | 0.0011 | 0.0018 | 0.0021 | 0.0013 | 0.0012 | 0.0017 | 0.002 | 0.0018 |
| Radium-226 (Bq/g) | <0.00006 | 0.00009 | 0.0001 | 0.0001 | 0.00009 | 0.0001 | 0.00007 | 0.0001 | <0.00007 | 0.0001 | 0.0001 | 0.0002 | 0.0001 | <0.00006 | 0.0001 |
| Thorium-230 (Bq/g) | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0002 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 |

¹All concentrations are presented on a µg/g wet weight basis, unless specified otherwise.

Appendix B, Table 7

Detailed barren-ground caribou and moose organ chemistry results for the EARMP community program, 2014 to 2017.

| Chemical ¹ | 2014/2015 Sampling Year | | | | | | | | | |
|----------------------------------|-------------------------|----------|----------|--------------|--------------|-----------------|----------|--------------|----------|----------------|
| | Fond du Lac | | | Uranium City | | Camsell Portage | | | | Wollaston Lake |
| | Caribou Kidney | | | Moose Liver | Moose Kidney | Moose Liver | | Moose Kidney | | Caribou Liver |
| | Sample 1 | Sample 2 | Sample 3 | Sample 1 | Sample 1 | Sample 1 | Sample 2 | Sample 1 | Sample 2 | Sample 1 |
| Metals and Trace Elements | | | | | | | | | | |
| Aluminum | <0.5 | <0.5 | <0.5 | 1.3 | <0.5 | <0.5 | 1.1 | <0.5 | 1.2 | 0.7 |
| Arsenic | <0.01 | 0.01 | 0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | 0.02 |
| Cadmium | 6.2 | 9.6 | 6.8 | 0.48 | 8 | 1.7 | 1.1 | 8.6 | 6.5 | 0.65 |
| Cobalt | 0.029 | 0.044 | 0.046 | 0.054 | 0.097 | 0.25 | 0.2 | 0.12 | 0.2 | 0.075 |
| Copper | 3.6 | 4.9 | 4.3 | 28 | 3 | 38 | 47 | 2.1 | 3.8 | 26 |
| Iron | 40 | 60 | 60 | 120 | 41 | 100 | 150 | 70 | 90 | 140 |
| Lead | 0.073 | 0.068 | 0.078 | 0.008 | 0.002 | <0.002 | 0.003 | <0.002 | 0.002 | 0.097 |
| Molybdenum | 0.12 | 0.11 | 0.14 | 0.65 | 0.24 | 0.9 | 1 | 0.21 | 0.42 | 1 |
| Nickel | <0.01 | 0.01 | 0.01 | <0.01 | 0.04 | <0.01 | <0.01 | 0.05 | 0.06 | <0.01 |
| Selenium | 1.3 | 1.6 | 1.4 | 0.2 | 0.67 | 0.22 | 0.21 | 0.71 | 0.78 | 0.4 |
| Uranium | <0.001 | <0.001 | <0.001 | <0.01 | <0.001 | <0.01 | <0.01 | <0.001 | <0.001 | <0.01 |
| Vanadium | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| Zinc | 23 | 28 | 27 | 14 | 25 | 15 | 20 | 16 | 23 | 24 |
| Radionuclides | | | | | | | | | | |
| Lead-210 (Bq/g) | 0.072 | 0.054 | 0.042 | 0.001 | 0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| Polonium-210 (Bq/g) | 0.088 | 0.081 | 0.086 | 0.0021 | 0.0032 | 0.0036 | 0.0024 | 0.0018 | 0.0023 | 0.0093 |
| Radium-226 (Bq/g) | 0.0003 | 0.0009 | 0.0005 | 0.00007 | <0.00006 | 0.0001 | <0.0001 | <0.00006 | 0.0005 | 0.0002 |
| Thorium-230 (Bq/g) | <0.0003 | <0.0006 | <0.0005 | <0.0001 | <0.0001 | <0.0001 | <0.0002 | <0.0001 | <0.0004 | <0.0001 |

¹All concentrations are presented on a µg/g wet weight basis, unless specified otherwise.

Appendix B, Table 7

Detailed barren-ground caribou and moose organ chemistry results for the EARMP community program, 2014 to 2017.

| Chemical ¹ | 2015/2016 Sampling Year | | | | | | | |
|----------------------------------|-------------------------|----------------|----------|--------------|--------------|-----------------|--------------|----------|
| | Black Lake | Fond du Lac | | Uranium City | | Camsell Portage | | |
| | Caribou Kidney | Caribou Kidney | | Moose Live | Moose Kidney | Moose Liver | Moose Kidney | |
| | Sample 1 | Sample 1 | Sample 2 | Sample 1 | Sample 1 | Sample 1 | Sample 1 | Sample 2 |
| Metals and Trace Elements | | | | | | | | |
| Aluminum | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | 0.6 | <0.5 | <0.5 |
| Arsenic | 0.01 | 0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Cadmium | 6.9 | 10 | 7.3 | 0.054 | 20 | 0.66 | 6.8 | 4.9 |
| Cobalt | 0.035 | 0.036 | 0.025 | 0.068 | 0.25 | 0.18 | 0.18 | 0.058 |
| Copper | 5 | 4.4 | 3.6 | 0.55 | 2.2 | 15 | 3.8 | 2.6 |
| Iron | 37 | 28 | 40 | 680 | 33 | 160 | 52 | 30 |
| Lead | 0.07 | 0.12 | 0.089 | <0.002 | <0.002 | 0.003 | <0.002 | 0.004 |
| Molybdenum | 0.15 | 0.16 | 0.12 | <0.02 | 0.17 | 1.1 | 0.45 | 0.25 |
| Nickel | <0.01 | <0.01 | <0.01 | <0.01 | 0.02 | <0.01 | 0.03 | 0.04 |
| Selenium | 1 | 1.2 | 1.1 | 0.18 | 0.53 | 0.92 | 1.2 | 0.78 |
| Uranium | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| Vanadium | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| Zinc | 24 | 26 | 25 | 15 | 24 | 20 | 26 | 20 |
| Radionuclides | | | | | | | | |
| Lead-210 (Bq/g) | 0.049 | 0.077 | 0.073 | 0.002 | 0.002 | 0.001 | 0.002 | 0.002 |
| Polonium-210 (Bq/g) | 0.064 | 0.083 | 0.066 | 0.0018 | 0.0037 | 0.026 | 0.027 | 0.0076 |
| Radium-226 (Bq/g) | 0.0005 | 0.0003 | 0.0003 | 0.0003 | 0.00007 | 0.0002 | 0.0001 | 0.0003 |
| Thorium-230 (Bq/g) | <0.0003 | 0.0005 | <0.0003 | <0.0001 | <0.0001 | <0.0002 | <0.0001 | <0.0001 |

¹All concentrations are presented on a µg/g wet weight basis, unless specified otherwise.

Appendix B, Table 7

Detailed barren-ground caribou and moose organ chemistry results for the EARMP community program, 2014 to 2017.

| Chemical ¹ | 2016/2017 | | | | | | | | |
|----------------------------------|---------------|---------------|----------------|----------------|---------------|----------------|--------------|--------------|---------------|
| | Fond du Lac | | Wollaston Lake | | Black Lake | | Uranium City | | Stoney Rapids |
| | Caribou Heart | Caribou Liver | Caribou1 Liver | Caribou2 Liver | Caribou Heart | Caribou Kidney | Moose Liver | Moose Kidney | Moose Kidney |
| Metals and Trace Elements | | | | | | | | | |
| Aluminum | <0.5 | <0.5 | 0.5 | <0.5 | <0.5 | 0.6 | <0.5 | <0.5 | <0.5 |
| Arsenic | 0.01 | <0.01 | 0.02 | 0.01 | 0.01 | 0.02 | 0.01 | 0.01 | 0.01 |
| Cadmium | 0.002 | 0.004 | 1.8 | 1.6 | 0.004 | 4.7 | 1.4 | 8.6 | 0.73 |
| Cobalt | 0.02 | 0.013 | 0.1 | 0.071 | 0.014 | 0.062 | 0.078 | 0.11 | 0.29 |
| Copper | 4.5 | 3.3 | 54.6 | 31.7 | 4.5 | 3.5 | 28.1 | 2.9 | 13.2 |
| Iron | 59 | 37 | 190 | 170 | 55 | 24 | 140 | 31 | 200 |
| Lead | 0.01 | 0.003 | 0.076 | 0.055 | 0.005 | 0.041 | 0.018 | 0.012 | 0.004 |
| Molybdenum | <0.02 | <0.02 | 0.74 | 0.57 | <0.02 | 0.21 | 0.81 | 0.2 | 1.1 |
| Nickel | 0.01 | 0.02 | 0.02 | <0.01 | <0.01 | 0.03 | <0.01 | 0.08 | 0.02 |
| Selenium | 0.26 | 0.18 | 0.4 | 0.4 | 0.27 | 0.94 | 0.53 | 0.88 | 0.24 |
| Uranium | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | 0.001 | <0.001 |
| Vanadium | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| Zinc | 20 | 37 | 36 | 41 | 19 | 24 | 23 | 23 | 27 |
| Radionuclides | | | | | | | | | |
| Lead-210 (Bq/g) | <0.001 | <0.001 | 0.056 | 0.04 | <0.001 | 0.023 | <0.001 | <0.001 | 0.001 |
| Polonium-210 (Bq/g) | 0.0092 | 0.0088 | 0.24 | 0.18 | 0.012 | 0.076 | 0.0057 | 0.0063 | 0.0042 |
| Radium-226 (Bq/g) | <0.00007 | <0.00006 | <0.00007 | <0.00007 | <0.00006 | <0.0001 | 0.0001 | 0.00030 | <0.00008 |
| Thorium-230 (Bq/g) | <0.0001 | <0.0001 | <0.0005 | <0.0001 | <0.0001 | <0.0002 | <0.0001 | <0.0001 | <0.0002 |

¹All concentrations are presented on a µg/g wet weight basis, unless specified otherwise.

