



EASTERN ATHABASCA REGIONAL MONITORING PROGRAM

2021/2022 COMMUNITY REPORT

FINAL REPORT

October 2022



Acknowledgments

The Eastern Athabasca Regional Monitoring Program (EARMP) is conducted in partnership with the Government of Saskatchewan, The Canadian Nuclear Safety Commission, and industry partners Cameco Corporation (Cameco) and Orano Canada Inc. (Orano).

The Executive Summary Dene translation was provided by Rosalie Tsannie-Burseth.

The EARMP steering committee would like to thank the Athabasca residents and communities who have donated their time and traditional foods over the years and for their continued support for the program. Community member participation and local knowledge are essential to the success of the program.

For more information on the program and additional reports please visit us at www.earmp.com



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Above: Fond du Lac, Saskatchewan

Executive Summary

The Eastern Athabasca Regional Monitoring Program was established in 2011 under the Province of Saskatchewan's Boreal Watershed Initiative. The community component of the program partners with communities within the Athabasca Basin to monitor the safety of traditionally harvested country foods by collecting and testing representative water, fish, berry, bird, and mammal tissue samples from the seven communities located in the region. Harvesting and consuming traditional foods are an important part of the culture in northern Saskatchewan which contributes to an overall healthy lifestyle through physical activity and healthy eating. Community members collected and submitted 60 fish samples, 18 bird samples, 13 small mammal samples, and 6 water samples for testing in late 2021 and early 2022. The current year's program results show that country foods are safe for consumption with chemical profiles for water, fish, small mammal, and bird tissue samples generally similar to previous monitoring years and natural background.

Yati nedhe hots'j Ɂedırı yatı hılchú sı

Diri erit'is Eastern Athabasca nenene ghq holj ni 2011. Saskatchewan Boreal Watershed (Tue Bazi Erit'is hołe si). Diri erit'is hołe si Dene yets'édanj t'a-u t'a bër, t'qchaghë t'a dághída si; tu, łue, jíé, dët'ani, ech'ërë ghq asi (betth'i ts'j) nałtsj. Diri ës't'ère ts'j asi nałtsj si bët'á boghedi ha hodi. Dene jlaisdjghj kóę nade si nih chu tu chu t'a nokorëlde t'a dághëna. Nih ts'j shelyi si bët'á naraíts'ër-u sodoghida ha. T'a nułts'ëranj si jłk'etqng łue tth'i hilchu, jłk'edjghj ts'adhel dët'ani ts'j asi hilchu, taghë ts'adhel ës't'ère ts'j asi nałtsj, jłk'etaghë tu hichu 2021 u 2022 nene k'e. Diri asi nałtsj si net'j-u Ɂqłı t'a bët'á dághída si asq?ile sj nih chu tu tth'i Ɂqłı nezu.

INTRODUCTION

Background

The EARMP is a collaborative industry-government partnership, 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 the Saskatchewan Ministry of Environment, the Canadian Nuclear Safety Commission, Cameco, and Orano. One of the primary goals of the Boreal Watershed Initiative was to assess the ecological integrity of Saskatchewan’s northern watersheds 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 impact of an action when added to other past, present, and foreseeable future actions (Joint Panel 1992). Cumulative effects might occur when projects overlap in an area (spatially), such as when two watersheds (rivers and streams), exposed to uranium mining and milling activities, converge. Cumulative effects may also occur overtime (temporally) if contaminants are emitted into the environment over extended periods. The EARMP was

Figure 1 Study location.



developed to establish baseline conditions and facilitate the examination of spatial and temporal changes over the long term.

This program is intended to supplement the extensive environmental monitoring completed near each uranium mining and milling operation in northern Saskatchewan, which are regulated



by federal and provincial agencies including the Canadian Nuclear Safety Commission, the Saskatchewan Ministry of Environment, and Environment and Climate Change Canada. In addition, community sampling has occurred through the Athabasca Working Group Environmental Monitoring Program for 18 years (2000-2017) and continues today as the Community-Based Environmental Monitoring Program under the Ya’Thi Néné Collaboration Agreement. The EARMP is designed to complement these monitoring programs and allows a more comprehensive evaluation of potential cumulative effects from industry in northern Saskatchewan. A full description of the EARMP study design is provided in Appendix A.

The EARMP framework includes two programs: a technical program and a community program. The technical monitoring program was established to monitor potential long-term changes in the aquatic environment far-downstream of uranium mining and milling operations in the Eastern Athabasca region. Sampling was last completed by CanNorth in 2015 and information from the technical monitoring program is presented in a separate report which can be viewed on the EARMP web-

site (www.earmp.com). The community program monitors the safety of traditionally harvested country foods by collecting and testing water, fish, berry, mammal, and avian tissue samples from the seven communities located in the Athabasca region. The community program results for the last 11 years (2011-2021) can be viewed on the EARMP website (www.earmp.ca). The objective of this document is to present a summary of the results of the community program conducted in 2021/2022.

“ *Gathering and eating traditional country foods can help reduce the risk of diabetes, heart disease, and obesity, especially when the foods are cooked in traditional ways.* ”

Dr. James Irvine – Saskatchewan Population Health Unit

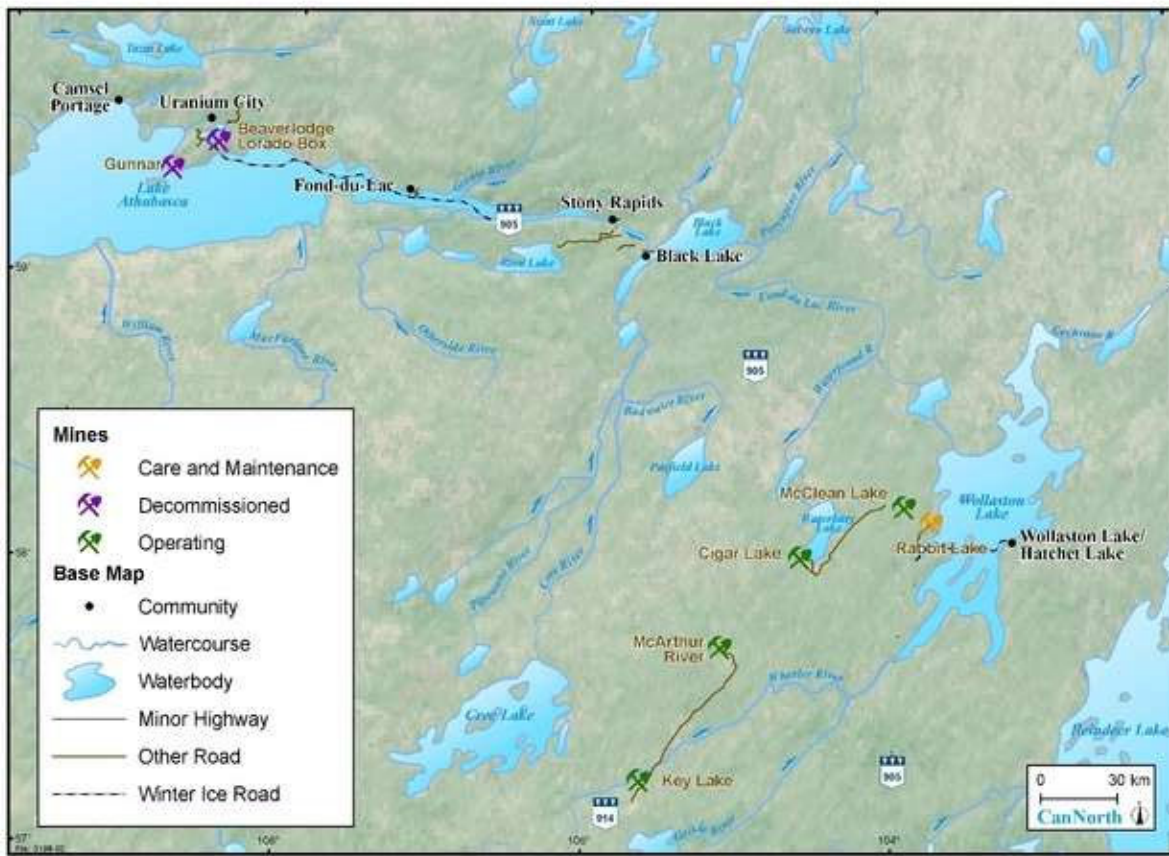
Uranium Mining and Milling Operations in the Region

As a result of the ongoing COVID-19 pandemic, both the active mine (Cigar Lake) and active mill (McGlean Lake) in the Eastern Athabasca region remained in a state of care and maintenance during the 2020 EARMP field season but re-opened in 2021 and was operational during the 2021 EARMP field season. Additional mine and mill operations in the region (i.e., Key Lake, McArthur River, and Rabbit Lake) were previously placed into care and maintenance due to market forces. In February 2022 it was announced that the Key Lake and McArthur River operations would begin a gradual return to production. In addition, other closed,

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 within the local study areas of each of the uranium mines/mills generally includes testing the air, soil, vegetation, water, sediment, benthic invertebrates, and fish (AREVA 2016; CanNorth 2016, 2018a, 2020a, 2020b, 2020c). These monitoring programs are designed specifically for each mine and are a requirement under the provincial operating licence and the CNSC Licenses as documented in the facilities Licence Conditions Handbook.

Figure 2 Study area overview.



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 2021/2022 community monitoring program, the communities of Wollaston Lake and Hatchet Lake Denesuline First Nation were assessed together for a total of six study areas.

Community Monitoring Program Objectives

The community monitoring program was developed to address potential concerns about the safety of traditional foods that community members routinely consume.



Above: George St. Pierre of Hatchet Lake First Nation on Wollaston Lake, Saskatchewan.

A number of traditional food studies have been completed in communities across northern Saskatchewan including Hatchet Lake Denesuline First Nation, Uranium City, the Lac La Ronge Indian Band, and English River First Nation, and have established that fish, berries,

and wild game are extremely important food sources for these northern communities (CanNorth 1999, 2011, 2014, 2017).

In 2018, a human health risk assessment was completed using all the available chemistry data collected from 2011 to 2017. The assessment determined that the level of chemicals of interest in the traditional foods were safe and do not pose health risks to members of the Athabasca Basin communities. The risk assessment is available in the 2017/2018 community monitoring report (CanNorth 2018b).

The community monitoring program objectives are to:



Determine the safety of traditionally harvested food for local consumption.



Establish long-term monitoring at community harvesting areas to assess changes over time.



Foster confidence in the consumption of traditional foods as well as engage and involve community members in the gathering of information.



Communicate monitoring results through reporting, meetings, and public media.

Summary of EARMP Community Monitoring Program Framework

Community Involvement



Above: Wayne Powder collecting water samples near Uranium City, Saskatchewan.

The community monitoring program relies on the participation of community members for the selection of sampling locations and for sample collection.

Community members play a role in every step of the process:

Community Representatives

In 2011, community members selected representatives from each community to carry out the annual country food sample collection.

The selected representatives were provided training in sample collection, storage, and shipping procedures.

Sample Locations

One water sample location was selected for each community for consistency. Fish, berry, bird, and mammal samples are collected from locations where community members routinely fish, gather and hunt.

Sample Collection

Each year, community representatives aim to collect five samples of each each food type from each community.

Sample Testing

Collected samples are shipped to CanNorth for laboratory testing by Saskatchewan Research Council. Results are analysed by CanNorth and compared to available guidelines, other data collected in the region, and the most recent human health risk assessment.

Sharing Results

Results are shared with the communities and are available to the public at www.earmp.com.

Sharing the monitoring results is one of the primary goals of the community program. To accomplish this, communication and engagement strategies are implemented and are summarized below:

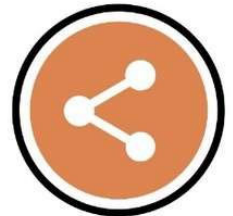


WWW.EARMP.COM

In 2020 the EARMP website was updated to improve the ease at which communities can access information and encourage community engagement.

SOCIAL MEDIA

Social media will be used as a promotional tool starting in 2020 through:
@CanNorthEnviroServices
[linkedin.com/company/cannorth](https://www.linkedin.com/company/cannorth)



CALENDARS

Free EARMP calendars in English, Cree, and Dene are distributed to the Athabasca communities and other northern communities and circulated through the band offices, community health centers, post offices, and schools annually.

PRESENTATIONS

Results are presented annually to the northern Saskatchewan Environmental Quality Committee in La Ronge.



Study Design and Objectives of the 2021/2022 Program

The community monitoring program continues to follow the study design and objectives outlined in the EARMP Community Program Framework (Appendix A), and consists of comparison to baseline data, regional reference data, and the most recent human health risk assessment (CanNorth 2018b). The study focuses on key chemicals of interest including the metals; aluminum, arsenic, cadmium, cobalt, copper, iron, lead, molybdenum, nickel, selenium, uranium, vanadium, and zinc. Radionuclides including lead-210, polonium-210, radium-226, and thorium-230 are also a primary focus. Ammonia in water and mercury in fish are also addressed. Note, all of these are present naturally in the environment but can become elevated due to mining and other industrial development activities.

The program is completed annually with the core components of water and fish sampled each year. A traditional food item is also selected each year as an additional sampling component. This year's additional focal items were snowshoe hare and spruce grouse. A portion of the budget is also set aside to support chemical analyses of opportunistic samples submitted by the community; however, there were no opportunistic samples submitted for the 2021 program. These community-requested samples can range from additional core samples or may be uniquely harvested species or specimens not historically part of the program (berries or animals hunted) or involve samples which have generated some community concern or interest.





The 2021/2022 program collected the core elements (water and fish), with snowshoe hare

and spruce grouse being the additional focal food for the year.



Results

The community monitoring report is subdivided into four sections:

-  Water (Tuîtãedi) Chemistry
-  Fish (Łue) Chemistry
-  Mammal (Ch'adi) Chemistry
-  Bird (Dět'ąņ) Chemistry

Appendix A provides a description of the community monitoring program framework, Appendix B presents a summary of the chemistry results, and detailed results from all sampling years are provided in Appendix C.

WATER (TUÎTÅEDI) CHEMISTRY

Surface water samples have been collected by hand at one waterbody of interest near each community by community members and CanNorth field staff, annually, since 2011 (baseline), with the exception of Camsell Portage in 2018 and 2020. Camsell Portage could not be sampled in 2020 due to the small population size and Covid-19 restrictions. Waterbodies assessed included Black Lake, Ellis Bay of Lake Athabasca near Camsell Portage, the Fond du Lac River near Fond du Lac, the Fond du

Lac River near Stony Rapids, the Fredette River near Uranium City, and Welcome Bay of Wollaston Lake (Figure 3). All samples were preserved as required and kept refrigerated until chemical analysis was completed. All water samples were submitted to the Saskatchewan Research Council analytical laboratory for chemical analysis. The summary water quality data is presented in Appendix B, Figure 1; Table 1 and summarized below. The raw water quality data are presented in Appendix C, Table 1.

Figure 3 Water quality sampling areas, 2011 to 2021





Concentrations of chemicals in the water over the years are very low, with most chemicals at levels so low the laboratory could not measure them even with the use of laboratory techniques known for their ability to measure low levels of chemicals. Chemicals that were at measurable levels were all lower than the Canadian Drinking Water Quality guidelines (Health Canada 2017) and the Saskatchewan Environmental Quality Guidelines for the protection of freshwater aquatic life (GS 2021). In addition, the pH at all locations was within the guideline range. Most of the chemical levels were within the range of concentrations expected for the region and the baseline assessment. The only exception was the 2021 sample from the Fond du Lac study area. This sample contained higher levels of some metals compared to previous years; though all values remained below the applicable guidelines. It is not known why these levels were higher. Due to travel restrictions and human health precautions CanNorth was not present during the sample collection as normal. Fond du Lac residents can rest assured that water quality



Summary of Water



Within Guidelines?



Similar to Baseline?



Similar to Regional Reference Range?



Safe to Drink?



will be monitored again in 2022/2023 and compared to previous results.

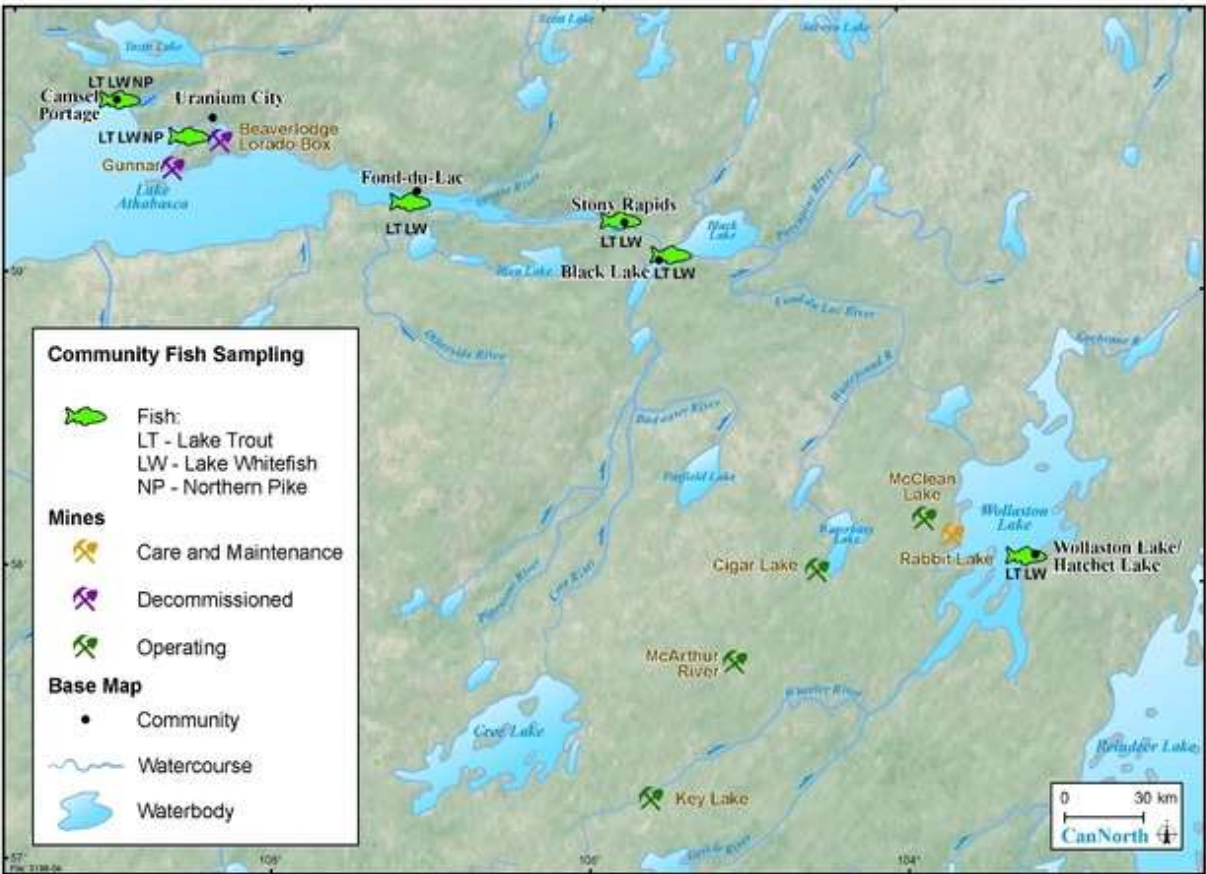
Overall, the concentrations of the chemicals assessed in the community water samples since the baseline sampling years (2011-2012) are very low and are not considered a concern to the environment or human health. Community members should note that drinking raw water from any source does carry a risk of ingesting natural parasites that can result in gastrointestinal infections.

FISH (ŁUE) CHEMISTRY

Fish chemistry samples were collected by community members using gill nets set at waterbodies near their communities, or by angling. Fish collected have included lake trout (Łuezané), lake whitefish (Łú), and northern pike (oulday) (Figure 4). In 2021, lake trout and lake whitefish were collected from all communities. Ageing structures (fish scales and ear bones)

were removed and submitted to a specialized laboratory to determine the age of the fish. The fish flesh was submitted to the Saskatchewan Research Council for chemical analysis. The data are summarized in detail in Appendix B, Table 2 and raw data are provided in Appendix C, Table 2.

Figure 4 Fish chemistry sampling areas, 2011 to 2021





Similar to the water chemistry results, the general levels of the chemicals in fish continued to be very low in 2021, with most chemicals at levels so low the laboratory could not measure them even with the use of laboratory techniques known for their ability to measure low levels of chemicals. Chemicals that were measurable in 2021 were within the regional reference range and comparable to concentrations measured during previous monitoring years with few exceptions. Chemicals that appeared higher in 2021 (mercury in lake trout from Black Lake and arsenic in lake whitefish from Uranium City and Wollaston/Hatchet Lake) were similar to past results from other EARMP communities. Selenium in lake whitefish from Uranium City was the only chemical measured outside of the reference range; however, values remained below applicable guidelines and are considered safe for consumption. All metals in lake whitefish will be monitored again in the 2022/2023 sampling program.



Summary of Fish



Similar to Baseline?



Similar to Regional Reference Range?



Safe to Eat?



Overall, the levels of chemicals assessed in the fish collected from the communities since 2011 are considered low and similar to levels assessed in the 2018 human health risk assessment that determined fish do not present health risks to Athabasca Basin residents. Mercury levels were low in fish sampled in 2021; however, it is recommended that community members consult the Saskatchewan Mercury in Fish Guidelines for additional information:

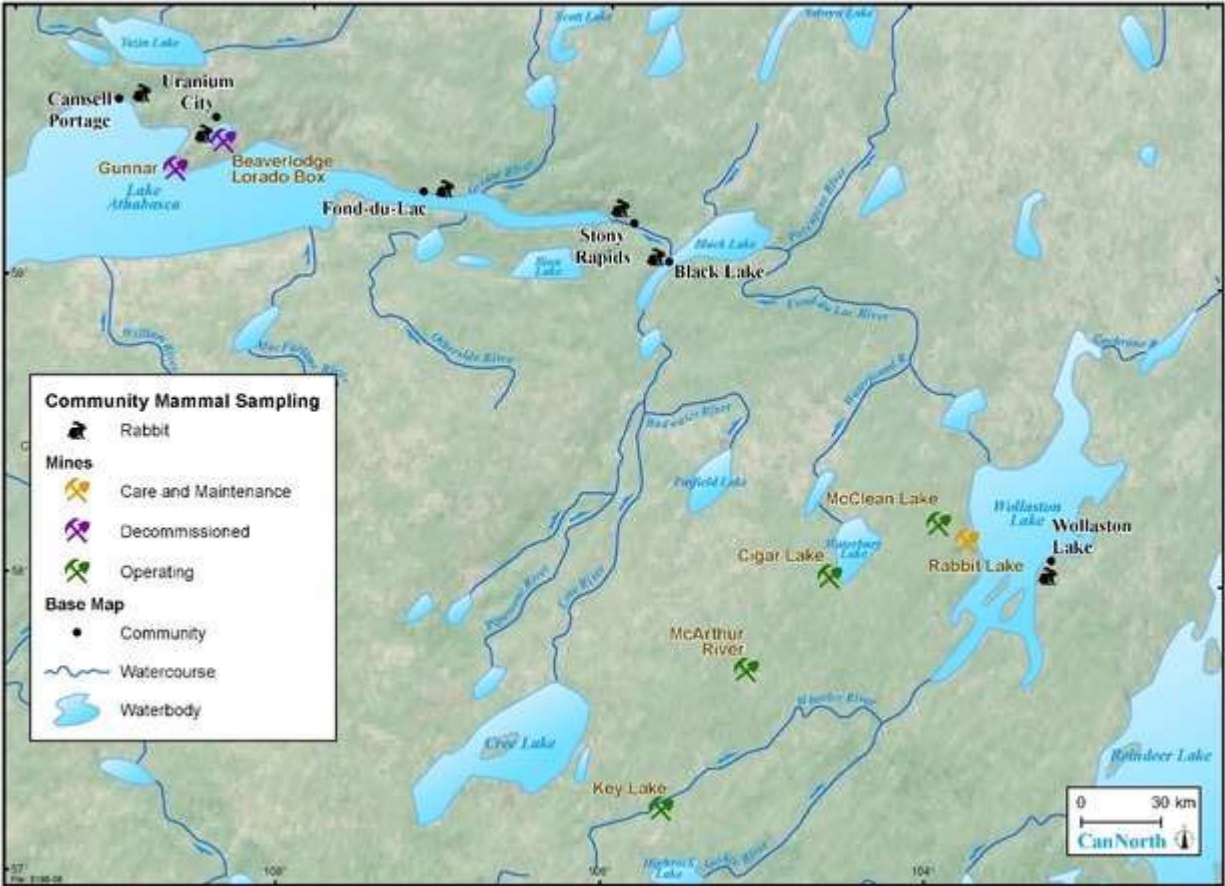
<https://publications.saskatchewan.ca/#/products/68781>

MAMMAL (CH'ADI) CHEMISTRY

One of the additional focal items of the 2021/2022 community monitoring program was small mammal tissue, specifically snowshoe hare. Samples were collected from routine hunting and trapping activities at locations depicted in (Figure 5). In 2021, snowshoe hare

muscle meat samples were sent in by community members from Black Lake, Fond du Lac, Stony Rapids, Uranium City, and Hatchet Lake/Wollaston Lake. The data are summarized in detail in Appendix B, Table 3 while raw data are provided in Appendix C, Table 8.

Figure 5 Snowshoe hare sampling areas, 2011 to 2021





Similar to the water and fish chemistry results, the levels of the chemicals in snowshoe hare continued to be very low in 2021, with most chemicals at levels so low the laboratory could not measure them. Chemicals that were measurable were similar to concentrations measured during previous monitoring years.



However, of note was the elevated level of lead in the sample from Black Lake in 2021 which was likely contaminated by lead shot. Lead ammunition continues to be used commonly for hunting small game in Saskatchewan. Consumers should be aware of the potential risk of eating game killed by lead shot. Contamination of traditional foods by lead-based ammunition was also identified as an issue by the First Nations Food, Nutrition and Environment study (Chan et al. 2021). Studies have shown that lead gunshot undergoes



fragmentation on impact with game and can contaminate the meat and increase exposure of lead to those eating it. It is recommended that hunters use ammunition alternatives that are not prone to fragment including steel or other high-weight retention ammunition alternatives.

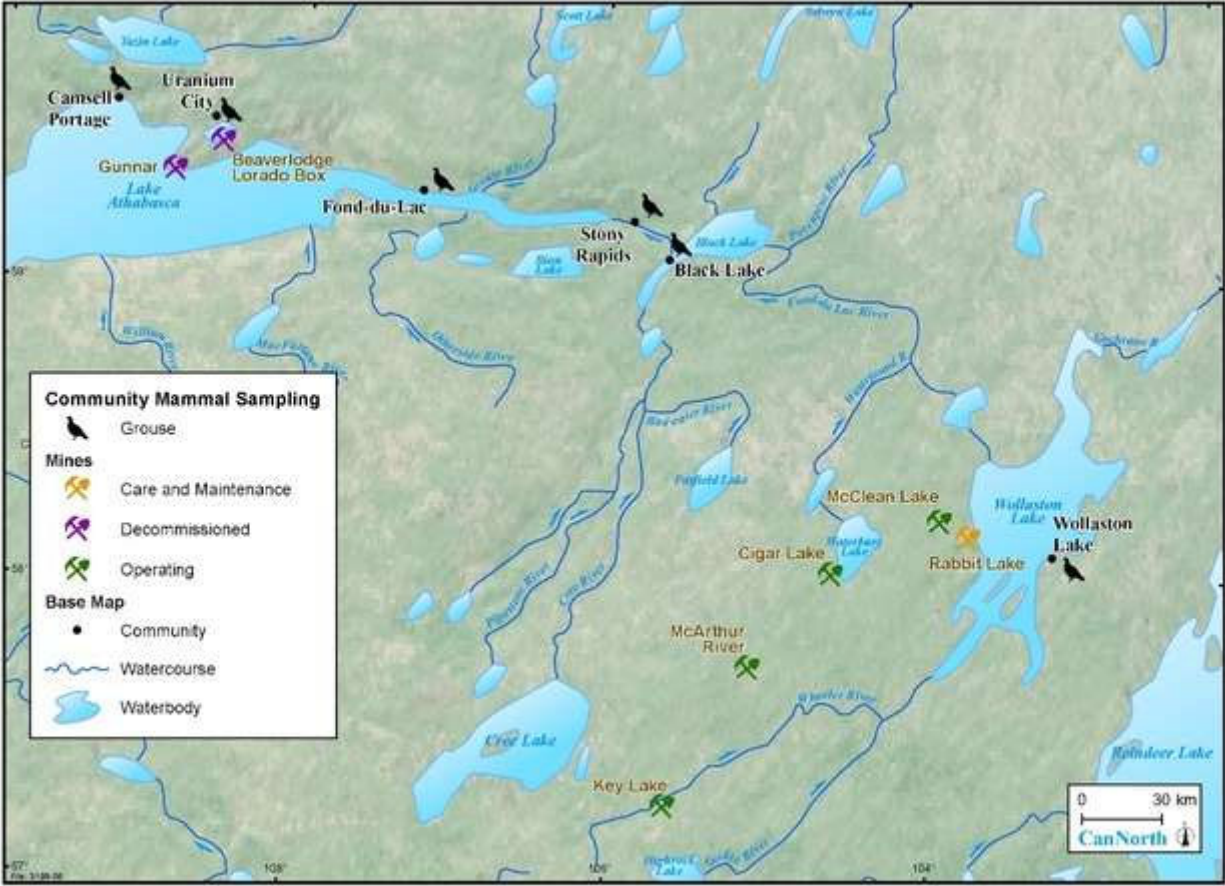
Overall, the levels of chemicals assessed in snowshoe hare muscle meat collected from the communities are considered low, and based on the 2018 human health risk assessment, the consumption of this meat by Athabasca Basin residents is considered safe.

BIRD (DĚT'ANJ) CHEMISTRY

The second focal item of the 2021/2022 community monitoring program was avian tissue, specifically spruce grouse. Samples were generally collected from routine hunting activities at locations depicted in (Figure 5). In 2021, spruce grouse muscle meat samples were

sent in by community members from Black Lake, Camsell Portage, Fond du Lac, Stony Rapids, Uranium City, and Hatchet Lake/Wollaston Lake. The data are summarized in detail in Appendix B, Table 4 while raw data are provided in Appendix C, Table 9.

Figure 6 Spruce grouse sampling areas, 2017 to 2021





Similar to the water, fish, and small mammal chemistry results, the levels of the chemicals in spruce grouse were generally very low in 2021, with most chemicals at levels so low the laboratory could not measure them. Chemicals that were measurable were comparable to concentrations from the previous monitoring year (2017). Spruce grouse were not collected from Camsell Portage in 2017 which means there are no previous samples to compare to. The next time spruce grouse are part of the community program they will be sampled again from Camsell Portage for molybdenum and all other metals.

Overall, the levels of chemicals assessed in spruce grouse muscle meat collected from the communities are considered low, and based on the 2018 human health risk assessment, the consumption of this meat by Athabasca Basin residents is considered safe.

None of the 2021 samples were contaminated by lead shot. However, it is noted that some of the 2017 samples contained elevated levels of lead likely due to lead shot. As discussed for snowshoe hare, the EARMP would like people to know that lead gunshot undergoes fragmentation on impact with game and can contaminate the meat and increase exposure of lead to those eating it. It is recommended that hunters use ammunition alternatives.

Summary of Mammals



Similar to Baseline?



Similar to Regional Reference Range?



Safe to Eat?



SUMMARY

The results indicate that the measured concentrations of chemicals of interest in water, fish, small mammal, and avian samples collected and tested in 2021-2022 community monitoring program were similar to baseline and regionally measured levels. The measured concentrations were also similar to those incorporated into the last human health risk assessment completed in 2018. These community traditional foods continue to be safe and a healthy dietary choice for residents of the Athabasca basin.



Safe to Drink?



Safe to Eat?



Safe to Eat?



WE WANT TO HEAR FROM YOU!

Please contact us at info@earmp.com

Tell us . . .



if there is anything missing from the program



If you have any comments or questions on the Eastern Athabasca Regional Monitoring Program please contact us info@earmp.com or visit our website at www.earmp.com

*"We live off the land and waters, birds, animals, fish,
berries; we have to respect and preserve them"*

Joe Beavereye

Elder from Black Lake Denesuline First Nation

*Nj̄h ts'j̄q̄né daghídá s̄i, tu chu nj̄h k'e, ʔasi yedá
dziredj̄thu tech'adie chu tué hu nj̄h k'e hots'j̄
jie t'a s̄i;degharé ʔediri ʔasié besuts'udí
hoʔq̄ yunadhédene godhé hobebá"*

Joe Beavereye

*ʔq̄lnedhe Black Lake Taz̄en tué Denesuline
First Nation hots'j̄*

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The report was prepared by:



CanNorth

Canada North Environmental Services (CanNorth) is a 100% Indigenous owned environmental consulting company based in Saskatoon, Saskatchewan. CanNorth has been providing environmental services to Canadian industry, government agencies, and First Nations and communities for over 30 years. For additional information visit us at www.cannorth.com

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APPENDICES

LIST OF APPENDICES

Appendix A Community Monitoring Program Framework

Appendix B Detailed Data Analysis

Appendix C Detailed Data

APPENDIX A

EARMP COMMUNITY PROGRAM FRAMEWORK

APPENDIX A: COMMUNITY MONITORING PROGRAM FRAMEWORK

1.0 INTRODUCTION

The Eastern Athabasca Regional Monitoring Program (EARMP) is a collaborative industry-government partnership, long-term environmental monitoring program established in 2011 under the Province of Saskatchewan's Boreal Watershed Initiative. The EARMP was designed to identify potential cumulative effects downstream of uranium mining and milling operations in the Eastern Athabasca region of northern Saskatchewan. It consists of two programs: a technical monitoring program and a community monitoring program. The technical program was established to monitor long-term changes in the aquatic environment far downstream of uranium mining and milling operations in the Eastern Athabasca region. The community program was established to monitor the safety of traditionally harvested country foods from the communities located in the Eastern Athabasca region.

The following document focuses entirely on the EARMP community program. The objective of the EARMP community program framework document is to provide detailed information related to the communities and mine sites located in the Eastern Athabasca region of northern Saskatchewan, the rationale for studying country foods, detailed information and rationale on the EARMP community program study design, and details of the data analyses and communication of the results.

2.0 STUDY AREA

2.1 Communities

There are seven communities in the region including Black Lake, Camsell Portage, Fond du Lac Denesuline First Nation, Hatchet Lake Denesuline First Nation/Wollaston Lake, Stony Rapids, and Uranium City. For the EARMP community program, the communities of Wollaston Lake and Hatchet Lake Denesuline First Nation were assessed together due to their close proximity to each other, creating a total of six community study areas. Provided below are brief descriptions of each community.

2.1.1 Black Lake

The Black Lake Denesuline First Nation is situated in northern Saskatchewan's Athabasca region approximately 1,180 km northwest of Prince Albert. Access to the community is by air to Stony Rapids and then by all-weather road approximately 20 km to Black Lake. Access to the Athabasca Seasonal Road (provincial highway 905) also lies between the two communities. The community currently maintains a total registered membership of 2,283 members, with an estimated 1900 of those members residing on reserve (BLFN 2022).

The people of Black Lake initially settled at Stony Lake prior to relocating to the area currently occupied by the fishing camp on the banks of the Black Lake River. The current Black Lake community was settled in the early 1950s after a new Roman Catholic church was constructed. The Dene language is still very strong and continues to be taught by the Elders to children and youth, both at home and within the school system. The people continue to maintain their traditional lifestyle of hunting, fishing, and trapping on a year-round basis as both commercial and private pursuits (PAGC 2008, 2012).

2.1.2 Camsell Portage

Camsell Portage is a small community located on the northern shoreline of Lake Athabasca, approximately 35 km from the community of Uranium City. It remains the most northern and isolated community in the province and is only accessible by boat in the open-water season and by air year-round.

Camsell Portage was settled by trappers who arrived during the 1900s from Lac La Biche, Alberta, the Northwest Territories, and Fort Fitzgerald, Alberta and who used it as a historical portage route to the north. During peak activities near Uranium City, Camsell Portage had a population of over 300 people (P. Steene pers. comm.). The population of Camsell Portage is currently 5 people and increases to approximately 20 people in the summer months (C. Larocque. pers. comm. June 20, 2022). No mining activity has taken place in the area; however, currently there are operating hydroelectricity generating stations near the community on the Waterloo, Wellington, and Charlot river systems.

2.1.3 Fond du Lac

The Fond du Lac Denesuline First Nation is situated on the northeast shore of Lake Athabasca in the Athabasca region of northern Saskatchewan, approximately 60 km south of the Northwest

Territories border and 1,275 km northwest of Prince Albert. It currently maintains a total registered membership of 2,300 members, with more than 900 members residing on reserve and 1,300 to 1,400 members residing at locations off reserve (FDN 2022). Members are primarily of Dene and Cree descent. Access to the community is by seasonal ice road in the winter and by boat during the summer. Two airline companies also provide year-round access to the community.

Founded over 150 years ago, Fond du Lac is one of the oldest and most remote northern communities in Saskatchewan. During Cultural Camp, the Elders share their cultural and traditional knowledge with the youth, including demonstrations in setting traps, tent raising, fire building, snowshoe racing, and preparing and smoking dry meat (PAGC 2008, 2012).

2.1.4 Hatchet Lake/Wollaston Lake

The Hatchet Lake Denesuline First Nation and the community of Wollaston Lake are situated on the south-eastern shoreline of Wollaston Lake (known in Dene as "Axe" Lake) in the Athabasca region of northern Saskatchewan, approximately 724 km northwest of Prince Albert (PAGC 2008). The Hatchet Lake Denesuline First Nation has total of 1,659 registered members, with 1,276 residing on the reserve and 377 members residing at locations off reserve (AANDC 2012). The northern settlement of Wollaston Lake has a population of 96 (SC 2021). Access to Hatchet Lake and Wollaston Lake is by ice road in the winter and by boat or barge during the open-water season. Year-round access is provided by two airline companies that operate scheduled flights between the surrounding communities and southern Saskatchewan.

Traditionally, the people lived as a hunting and gathering society with barren-ground caribou being an important food source. They still follow the seasonal caribou hunting patterns today. The majority of residents are Dene; however, during the 1950s some people of Cree-Metis ancestry moved to the northern settlement of Wollaston Lake (PAGC 2012).

2.1.5 Stony Rapids

Stony Rapids is a northern hamlet in Saskatchewan with a total population of 219 residents (SC 2021). The community is located on the shoreline of the Fond du Lac River, approximately 80 km south of the border with the Northwest Territories. The Fond du Lac River connects the community of Stony Rapids to the Fond du Lac Denesuline First Nation, Uranium City, and Camsell Portage. An all-weather road also connects the community to the Black Lake Denesuline First Nation.

2.1.6 Uranium City

The history of the Uranium City area dates back to the late 1930s when uranium ore was first discovered in the area. It was not until 1952 that the town of Uranium City was established as a base for uranium mining in the Beaverlodge area. Operations at Saskatchewan's first uranium mine began in May of 1953 and continued until June of 1982, by which time rising costs and failing ore grade made it unprofitable. Within a year following the closure of the mine, Uranium City changed from a resource town of almost 2,500 inhabitants to a northern settlement with approximately 150 residents (Bone 1998). Uranium City continued to serve as the regional base for a number of services including education, health care, and the RCMP headquarters for a number of years following the mine closure. Many public institutions closed in 1983 and the hospital closed in 2003. The current population is approximately 91 residents (SC 2021).

2.2 Uranium Operations

There are currently five uranium mines/mills in the Eastern Athabasca region. These include Key Lake, McArthur River, McClean Lake, Rabbit Lake, and Cigar Lake. In addition, the decommissioned Beaverlodge uranium mine and mill site is located within the region and near the community of Uranium City.

2.2.1 Key Lake

Cameco Corporation's (Cameco) Key Lake Operation is located in north-central Saskatchewan approximately 570 km north of Saskatoon. Mining at the Key Lake Operation began in 1982 with open pit mining of the Gaertner orebody followed by open pit mining of the Deilmann orebody beginning in 1986. Mining activities ceased in 1997 with stockpiles from the Deilmann orebody lasting until late 1999. At this time, the mill began processing ore trucked approximately 80 km from the McArthur River Operation and shifted from subaerial to subaqueous tailings management at the Deilmann Tailings Management Facility. In 2018, due to market weakness in uranium prices, Cameco suspended the production at McArthur River and Key Lake for an indeterminate duration and placed both sites in a state of care and maintenance. In February 2022, Cameco announced plans for the operation's gradual return to production.

2.2.2 McArthur River

The McArthur River Operation is located approximately 270 km north of La Ronge and 80 km north of the Key Lake Operation. It is currently the world's largest, high-grade uranium deposit.

McArthur River has been operational since 1999 and is managed and operated by Cameco. The operation includes underground mining, processing systems, an ore handling system, and camp infrastructure. Specialized mining equipment is used to extract the high-grade uranium ore and mineralized wastes are blended with high-grade ore to produce a slurry, which is trucked to the Key Lake Operation for processing and resulting tailings management.

2.2.3 McClean Lake

The McClean Lake Operation is located approximately 15 km west of Wollaston Lake in northern Saskatchewan. Orano Canada Inc. (formerly AREVA) is the majority owner (70%) and operator of the McClean Lake Operation. Exploration activities started in the late 1970s, environmental assessment in the early 1990s, and the initiation of mining and mill operations in 1996 and 1999, respectively. The McClean Lake Operation currently comprises of three main areas: the JEB area, which includes the permanent camp and the McClean Lake mill and JEB tailing management facility; the Sue mining area, which includes the mined-out Sue A/C, Sue B, and Sue E pits; and the Sink/Vulture Treated Effluent Management System (S/V TEMS).

2.2.4 Rabbit Lake

The Rabbit Lake Operation, owned and operated by Cameco, is the longest-operating uranium production facility in Saskatchewan (since 1975). It is located in northeastern Saskatchewan, on the west side of Wollaston Lake approximately 350 km north of La Ronge. The Rabbit Lake Operation includes the Eagle Point underground mine, Rabbit Lake mill, four mined-out open pit mines, of which the original Rabbit Lake pit is being used as the Rabbit Lake In-Pit Tailings Management Facility (RLTMF), the Rabbit Lake Above Ground Tailings Management Facility (AGTMF), overburden stockpiles, waste rock stockpiles, effluent treatment facilities, and camp infrastructure. Rabbit Lake was transitioned into care and maintenance in 2016.

2.2.5 Cigar Lake

The Cigar Lake Operation is located approximately 80 km west of Wollaston Lake and 40 km inside the eastern margin of the Athabasca Basin region of northern Saskatchewan. The Operation involves the construction, mining operation, and eventual decommissioning of what is currently the world's highest-grade and second largest known uranium deposit. The Operation is currently managed and operated by Cameco. The initial discovery of the Cigar Lake uranium deposit occurred in May 1981. Following the acquisition of the construction license in December 2004, underground construction activities commenced. Site construction activities were expected to

take 24 months to 36 months; however, in 2006 and 2008 the mine experienced two inflow events that caused flooding of all underground workings of the Cigar Lake Project. Cigar Lake became operational in July 2014 but was in a state of care and maintenance as a result of the COVID-19 pandemic through the 2020/2021 EARMP program, however; the mine was operational during the 2021/2022 EARMP program.

2.2.6 Other Properties

The decommissioned Eldorado uranium mining and milling operation is located approximately 8 km east of Uranium City and north-east of Beaverlodge Lake in northern Saskatchewan. The mine operated for almost 30 years between 1953 and 1982. Decommissioning of the site occurred from 1983 to 1985 and transition phase monitoring continues today. Upon its inception as a publicly traded company, Cameco was assigned responsibility for the management and reclamation of the decommissioned site. Post-decommissioning activities include the ongoing monitoring and maintenance of the site, regular water quality monitoring at stations within the area, and a variety of special investigations to assess specific environmental concerns.

In addition, Beaverlodge Lake is the receiving environment for the discharges from at least nine other abandoned uranium mine sites and one former uranium mill tailings area (the Lorado Uranium Mining Ltd. mill site), which are managed by the Saskatchewan Research Council (SRC). SRC is managing Project Cleans, which is also responsible for the assessment and reclamation of the Gunnar uranium mine and mill site and over 30 abandoned satellite mines in the Uranium City area.

The Cluff Lake Project, owned by Orano Canada Inc., is a decommissioned uranium mine and mill site located approximately 75 km south of Lake Athabasca. The Cluff Lake ore deposits were first discovered in the mid-1960s. Uranium mining and milling operations commenced in 1980 and ceased in 2002. Detailed planning for the decommissioning of the Cluff Lake Project began in 1998 and the majority of the physical decommissioning was completed in 2006. The Cluff Lake site has been in post-decommissioning monitoring since 2006 with a transition to campaign monitoring in 2013.

3.0 RATIONALE FOR STUDYING COUNTRY FOODS

The uranium mining and milling operations in northern Saskatchewan complete extensive environmental monitoring that routinely test the air, soil, vegetation, water, sediment, benthic invertebrates, and fish in their local study areas. However, these monitoring programs do not answer the question of whether country foods that are fished, hunted, or gathered near communities located downstream of multiple uranium operations are safe to eat. Since country foods, such as fish, berries, and wild game are important food sources in northern communities, the EARMP community program was developed to conduct an extensive and long-term regional sampling program testing these foods. The following section further discusses some of the uses and benefits of traditional country foods by northern residents.

3.1 Traditional Use of Country Foods

Studies conducted across Canada have documented that harvesting, sharing, and preparing traditional country foods is an important part of the Indigenous lifestyle (Wein et al. 1991; Wein and Freeman 1995; Kuhnlein and Receveur 1996; Receveur et al. 1997; AFN 2007). Traditional country food studies conducted in Hatchet Lake and Uranium City established that fish, berries, and wild game are important food sources for communities located in northern Saskatchewan (CanNorth 1999, 2011).

While fish is important to all of the communities, the relative importance of other meat sources varies. Studies have indicated that Hatchet Lake residents have a strong dependence on barren-ground caribou meat (especially during the winter months) whereas Uranium City residents rely more on moose and birds (CanNorth 1999, 2011). Uranium City residents have comparable meat/bird (grams per day) consumption values to the residents from similar regions such as Fort Smith, Northwest Territories and Fort Chipewyan, Alberta (CanNorth 2011). The more frequent caribou meat consumption in Hatchet Lake may be explained by availability, cultural differences, and/or preference of Hatchet Lake residents for caribou. A number of factors play a role in the differences in consumption patterns such as population size, road access, proximity to animal migration routes, presence of hunters, trappers, or fishermen, age and gender, costs and availability of market foods, and access to transportation with the southern part of the province (Wein et al. 1991; Blanchet et al. 2000; Batal et al. 2005).

3.2 Health Benefits of Traditional Country Foods

Harvesting and consuming traditional foods are integral components of good health among Indigenous people, influencing both physical health and social well-being. The act of hunting and gathering traditional foods is an important aspect of physical activity. Hunting, fishing, and berry picking also provides socio-cultural benefits to community members including mental health, cultural identity, and morale (AFN 2007). Gathering and eating traditional country foods can help reduce the risk of diabetes, heart disease, and obesity, especially when the foods are cooked in traditional ways (PHU AHA 2005).

Several health benefits of consuming traditional country foods have been documented across northern Canada. Fish are an important part of a healthy diet containing high-quality protein, Vitamin B, Vitamin D, omega-3 fatty acids, and other essential nutrients (NWT 2011; PHU AHA 2014). Fatty fish, such as lake trout, are especially high in omega 3 fatty acids and are considered important for heart health and brain and eye development. Compared to store-bought chicken breast and ground beef (0.10-0.31g/100g), northern Saskatchewan freshwater fish have much higher contents of omega 3 fatty acids (0.31-1.19g/100g). In addition, northern Saskatchewan fish have substantially lower levels of saturated fat, compared to store-bought chicken and ground beef (PHU AHA 2014). Fish eggs are also an excellent source of protein, Vitamin C, B vitamins, and iron (NWT 2002; NWT 2011). The skin of the fish and soups cooked with fish heads and bones are good sources of calcium (Receveur et al. 1997; NWT 2011).

Wild game meat such as moose and caribou are an important source of vitamins, minerals, and protein and have less saturated fat than store-bought meats (PHU AHA 2005; 2014). The fat content of barren-ground caribou meat is very low (1%) compared to beef, pork, or poultry (12% to 40%) (NWT 2002). Wild game are also high in essential nutrients such as iron, zinc, copper, magnesium, and phosphorous (Kuhnlein et al 1995; Receveur et al. 1997).

Compared to store-bought chicken breast and ground beef, the northern game meats have similar amounts of protein (21.4-25.6 g/100g), between 2- and 7-times higher levels of Iron (3.08-4.1 mg/100g) and fewer calories (98-123 kcal/ 100g). Overall, this indicates that northern Saskatchewan caribou, moose, and rabbit are low-calorie, nutrient dense, healthy servings of meat and meat alternatives (PHU AHA, 2014). Soups and/or stews cooked with bones for broth are high in calcium (Receveur et al. 1997), while many organs including liver contain high levels of iron needed for healthy blood and Vitamin A needed for healthy bones, skin, and teeth (HWC 1987; NWT 2002).

Traditional plants such as cranberries, blueberries, and Labrador tea are often used in both food and medicine (CanNorth 1999, 2011) and potentially offer additional health benefits. Wild plants are excellent sources of Vitamin C, fibre, and carbohydrates (Johnson et al. 1995; NWT 2002). For example, rose hips, consumed by many First Nations in a variety of medicinal and food preparations, are high in Vitamin C and demonstrate antibacterial and antioxidant properties (Yi et al. 2007).

3.3 Canada Food Guide – First Nations, Inuit, and Métis

In 2007, Health Canada introduced a newly tailored Canada Food Guide *“Eating Well with Canada's Food Guide - First Nations, Inuit and Métis”* (HC 2007) that includes both traditional country foods and store-bought foods that are generally available and accessible across Canada. This tailored food guide has recommendations for healthy eating based on science and recognizes the importance of traditional/country and store-bought foods for First Nations, Inuit, and Métis today. In addition, the government of Northwest Territories (NWT 2005) has also established a food guide that is tailored towards traditional country foods. Both the Canada Food Guide and the Northwest Territories Food Guide contain recommendations on the number of servings¹ (grams per day) of wild meats, birds, plants, fish, and other staples such as bannock, wild rice, and traditional fats. Choosing the amount and type of food recommended in Canada's Food Guide will help:

- children and teens grow and thrive;
- meet needs for vitamins, minerals, and other nutrients; and,
- lower risk of obesity, type 2 diabetes, heart disease, certain types of cancer, and osteoporosis (weak and brittle bones).

For more information on Canada's Food Guide please visit www.healthcanada.gc.ca/foodguide or *“Eating Well with Canada's Food Guide - First Nations, Inuit and Métis”* <http://www.hc-sc.gc.ca/fn-an/pubs/fnim-pnim/index-eng.php>. For more information on the Northwest Territories Food guide please visit <https://www.hss.gov.nt.ca/en/services/nutritional-food-fact-sheet-series>.

¹ It should be noted that the food guide serving size for meat and alternatives has decreased over time and each serving size recommended is 75 g, which is likely less than what most people consider a serving size. For this study, actual intake amounts were used from the area to complete the Human Health Risk Assessment.

4.0 STUDY DESIGN AND OBJECTIVES

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 and 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.

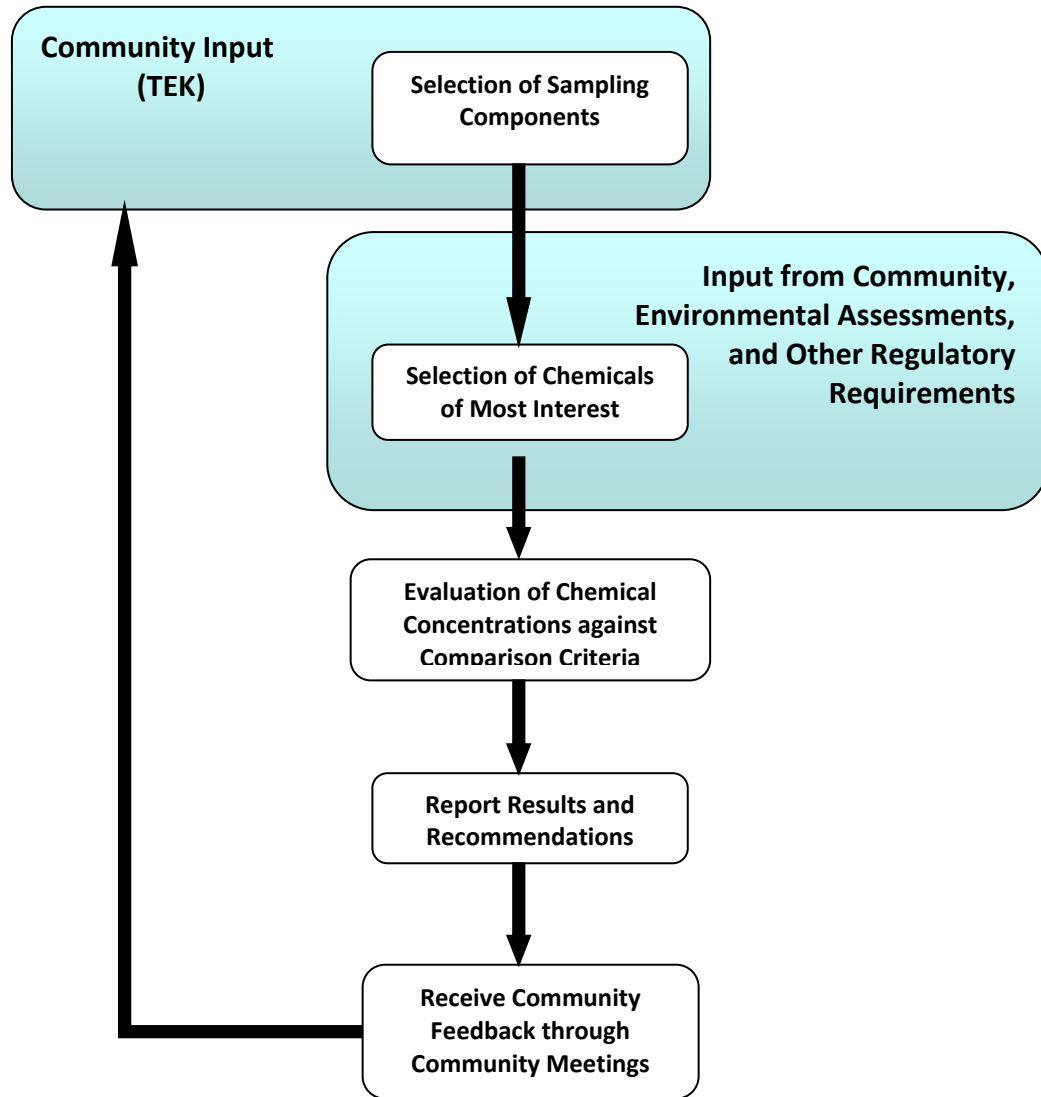
The 2011/2012 and 2012/2013 data were used to establish baseline/current conditions for each species sampled in each community area. Each subsequent monitoring year's data will be compared to this baseline in order to assess potential changes over time or temporal trends in chemical concentrations of country foods routinely eaten by residents of the Eastern Athabasca region.

The study design for the EARMP community program will remain consistent over time, to the extent possible, in order to collect a consistent long-term data set. However, the program is also adaptive and may be refined in response to new information or changes associated with the development in the region. Some things to consider moving forward include:

- **Community concerns:** the EARMP community program monitors endpoints of highest concern to the communities. Sampling components may be refined or expanded based on the needs of the community members.
- **Regional development:** the development of additional uranium mining and milling operations in the region may also influence the overall design of the program.
- **EARMP Community Program results:** changes to the design of the EARMP community program may occur based on results and conclusions from each monitoring year.

A key aspect of a successful community monitoring program is that the sampling locations and media are selected based on their importance to the communities and the sampling is completed by, or with, local residents. It also helps to build trust between the residents of communities and

industrial operators in the region. Traditional Ecological Knowledge (TEK) is an essential part of the program. The approach of the program is summarized in Appendix A, Figure 1.



Appendix A, Figure 1.
Summary of the EARMP community monitoring program approach.

In addition to community input, chemicals of interest are selected based on those identified through the environmental assessment process and monitoring requirements in the region. Uranium mining and milling operations are subject to the *Canadian Environmental Assessment Act* and the *Impact Assessment Act* and regulated by the Canadian Nuclear Safety Commission, the Saskatchewan Ministry of Environment, and Environment and Climate Change Canada.

4.1 Sampling Components

The program is completed annually with the core of the program involving annual sampling of water and fish along with a selected focus traditional food each year. A portion of the budget is set aside to support chemical analyses of additional samples beyond the core samples targeted for that sampling year. The country foods were selected in consultation with community members and currently include water and fish (lake trout and lake whitefish). Berries (blueberry and bog cranberry), mammals (moose, barren-ground caribou, and snowshoe hare), and birds (spruce grouse) served as additional samples in years when they were abundant. Sampling components are meant to be representative of what community members are consuming; therefore, they vary from time to time throughout the long-term monitoring program to include other components (e.g., game birds, snowshoe hare, and more).

Two dietary surveys have been completed for communities within the region: The Hatchet Lake Dietary Survey (CanNorth 1999) and the Uranium City Country Foods Study (CanNorth 2011). Country foods currently selected for the EARMP community program formed a large percentage of foods identified in these surveys.

4.2 Sampling Locations

Near each community, one station was established from which a water quality sample was obtained. The station locations were decided upon by the CanNorth staff member and the community members conducting the sampling and were determined by accessibility, water depth, and proximity to the community. Fish, berry, bird, and mammal samples were obtained from locations that community members routinely fish, gather, and hunt their traditional country foods. This ensures the sampling program is testing the study areas most relevant to the communities.

4.3 Sampling Frequency

The EARMP community program is intended to be an annual sampling campaign (every fall/winter) for the first five years, after which the sampling frequency was re-evaluated as planned. Annual sampling has continued since the program began to maintain the community relationship. To manage long-term costs not all sample media continued to be sampled every year. The program has now standardized to the collection of water and fish each year with an extra focal component (e.g., berries, moose/caribou, snowshoe hare, spruce grouse, increased fish sampling) added each year. This approach has proven to be the most efficient means of

ensuring the collection of traditional foods across all the communities with adequate replication within a single sample year for the primary media of interest (water, fish, berries, meat). The target sample size is generally five samples from each community of each media type. However, some sampling components are harder to obtain, such as moose and barren-ground caribou; thus, sample sizes may be smaller at some communities in some years.

Additionally, each year a portion of the budget is set aside to allow the program the flexibility to respond to a limited number of “community request” samples. Community request samples can range from additional core samples in the event of an especially abundant harvest, may include uniquely harvested species or specimens not historically a part of the program, or may involve samples which have generated some community concern or interest (e.g., visible abnormalities or indicators of poor health).

4.4 Laboratory Analysis

All samples are analyzed by the SRC in Saskatoon. The SRC Analytical Laboratories are certified and accredited by the Canadian Association for Laboratory Accreditation Inc. (CALA). Accreditation ensures that procedures, facilities, and methods conform to ISO/IEC 17025, which is an internationally recognized standard. SRC has an extensive Quality Assurance/Quality Control (QA/QC) program to ensure reliable analytical results. With each set of samples run, SRC tests reference materials, duplicates, and spiked samples. Data results provided by SRC include full QA/QC reports for each sample submission.

Sample analyses completed by SRC included a full suite of parameters for each media type and are described Appendix A, Table 1.

Metals and trace elements analysis are completed by ICP-MS because it is a fast, multi-elemental technique similar to ICP-AES, but with better detection limits. For most elements, ICP-MS is able to achieve detection limits similar to or lower than Graphite Furnace AAS (Wolf 2005). The analysis of metals and trace elements with ICP-MS also meets Metal and Diamond Mining Effluent Regulations (MDMER) requirements (EC 2012). However, it should be noted that even with the use of ICP-MS, concentrations of many metals and trace elements in the EARMP sampling media are at levels below the Reporting Detection Limit (RDL). In addition, RDL for radionuclides tend to vary based on the mass of the sample. For values that were below the RDL, it is not possible to determine the actual concentration; therefore, all values were set equal to the RDL for computing averages and standard deviations. This is a conservative approach as the actual concentrations could be substantially lower than the RDL.

Appendix A, Table 1

List of chemicals and supportive parameters measured in traditional foods for the EARMP community program.

Parameter		Water	Berries	Fish	Mammals	Birds
Inorganic Ions	Bicarbonate, Calcium, Carbonate, Chloride, Magnesium, Potassium, Sodium, Sulphate, Hydroxide	x				
Metals and Trace Elements	Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Chromium, Cobalt, Copper, Fluoride Iron, Lead, Manganese, Mercury*, Molybdenum, Nickel, Selenium, Silver, Strontium, Thallium, Tin, Titanium, Uranium, Vanadium, Zinc	x	x	x	x	x
Nutrients	Ammonia as N, Nitrate, Total Nitrogen, Total Kjeldahl Nitrogen, Total Organic Carbon, Phosphorus	x				
Radionuclides	Lead-210, Polonium-210, Throium-230, Radium-226	x	x	x	x	x
Physical Properties	pH, Specific Conductance, Sum of Ions, Total Alkalinity, Total Dissolved Solids, Total Hardness, Total Suspended Solids, Turbidity	x				
	% Moisture		x	x	x	x

*Water and fish only.

4.5 Data Assessment Approach

4.5.1 Endpoints

Although a full suite of chemical parameters were measured for each sample, this report focuses 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. Appendix A, Table 2 summarizes the endpoints assessed for the EARMP Community Program. Supporting endpoints for the water quality assessment also included organic carbon, specific conductivity, total hardness, and pH.

While mercury is included in Appendix A, Table 2, it is not associated with uranium mining and milling operations. Monitoring programs completed in each mine site’s local study area have repeatedly shown that mercury concentrations in the treated effluent are below the MDMER

criteria for monitoring² (EcoMetrix 2010a, 2010b; SENES 2010, 2012; AREVA 2012). Mercury occurs naturally in the environment and can be found at low levels in most soils and rocks. In northern Saskatchewan, natural deposits associated with lead, zinc, copper, silver, and gold are likely the cause of higher levels of mercury in fish in some lakes (SE 2011). Since mercury has been identified as a concern to community members in the Athabasca Region, it has been included in the assessment.

Appendix A, Table 2
Chemical endpoints selected for the EARMP.

Reduced List of Chemicals	
Aluminum	Molybdenum
Ammonia as N*	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 the uranium mining and milling process.

4.5.2 Comparison Criteria

To evaluate the community data, concentrations of the reduced list of chemicals are compared to:

- available guidelines;
- available regional reference data; and
- available literature and/or Human Health Risk Assessments.

The above comparison criteria are used for each media type to establish if the country foods sampled in each community are within the expected background concentrations for the region, are below guidelines, and are considered safe to eat based on a Human Health Risk Assessment. As additional monitoring phases are completed, assessing changes in potential chemical

² If the concentrations of total mercury is less than 0.1 µg/L in 12 consecutive treated effluent samples, monitoring is not required (MDMER, Schedule 5, subsection 4(3)).

concentrations over time will be an important component of the program. Data sources for the information used are described below.

4.5.3 Data Sources

4.5.3.1 Guidelines

Federal and provincial guidelines are available for some media types assessed in the EARMP community program. These include the Canadian Drinking Water Quality Guidelines (CDWQGs; HC 2017), the Canadian Water Quality Guidelines (CWQGs) for the protection of freshwater aquatic life (CCME 2021), the Federal Environmental Quality Guidelines (FEQGs; GC 2019), and the Saskatchewan Environmental Quality Guidelines (SEQG) for the protection of freshwater aquatic life (GS 2021). For those chemicals where the values depend on hardness, the hardness concentration from each location was used to establish the guideline. Appendix A, Table 3 summarizes the guidelines used for comparison to the EARMP community data.

Appendix A, Table 3

Chemistry guidelines used for comparison to EARMP community data.

Chemical	Guideline			
	CDWQG (Drinking Water)	CEQG (Environmental)	FEQG (Environmental)	SEQG (Environmental)
Aluminum	0.1 mg/L	0.1 ¹ mg/L	-	0.1 ¹ mg/L
Ammonia as nitrogen	-	2.68-26.65 ² mg/L	-	2.68-26.65 ² mg/L
Arsenic	10 µg/L	5 µg/L	-	5 µg/L
Cadmium	0.007 mg/L	0.00004-0.0001 ³ mg/L	-	0.00004-0.0001 ³ mg/L
Cobalt	-	-	0.00078-0.0018 ³ mg/L	-
Copper	2.0 mg/L	0.002 ³ mg/L	-	0.002 ³ mg/L
Iron	0.3 mg/L	0.3 mg/L	-	0.3 mg/L
Lead	0.005 mg/L	0.001 ³ mg/L	-	0.001 ³ mg/L
Mercury	1 µg/L	0.026 µg/L	-	0.026 µg/L
Molybdenum	-	0.073 mg/L	-	31 mg/L
Nickel	-	0.025 ³ mg/L	-	0.025 ³ mg/L
Selenium	0.05 mg/L	0.001 mg/L	-	0.001 mg/L
Uranium	20 µg/L	15 µg/L	-	15 µg/L
Vanadium	-	-	0.120 mg/L	-
Zinc	5.0 mg/L	0.03 mg/L	-	0.03 mg/L
pH	7.0 to 10.5	6.5 to 9.0	-	6.5 to 9.0
Thorium-230	0.6 Bq/L	-	-	-
Radium-226	0.5 Bq/L	-	-	0.11 Bq/L
Lead-210	0.2 Bq/L	-	-	-
Polonium-210	0.1 Bq/L	-	-	-

¹Adjusted to a pH > 6.5.

²Adjusted according to water temperature and pH of each waterbody.

³Adjusted to water hardness in each waterbody.

4.5.3.2 Regional Reference Data

Regional reference data are available from a number of sources. Reference water and fish chemistry data are available from CanNorth’s database. Water and fish chemistry data from several lakes north of Points North sampled between 2005 and 2014 were utilized to generate the regional reference values (Appendix A, Table 4). This included 249 water samples, 69 lake whitefish samples, and 35 lake trout samples. In 2015, additional lake trout (24 samples) were also collected from reference areas (McKenzie Lake, Henday Lake, and Riou Lake) to improve the regional reference data set to 59 samples for this species. Water samples spanned a total of 39 lakes, while lake trout data spanned 6 lakes, and lake whitefish data spanned 12 lakes. As more data become available, the regional reference data set will become more robust, particularly for the lake trout data set.

Appendix A, Table 4

EARMP regional reference range data sources for water and fish chemistry.

Factor	Water		Lake Trout Flesh	Lake Whitefish Flesh
Years ¹	2006 to 2014		2005 ² , 2010 to 2012 and 2015 ³	2006 to 2014
Areas ¹	Agent Lake	Lower Read Lake	Cree Lake	Alsask Lake
	Alsask Lake	Mad Dog Lake	Henday Lake	Cree Lake
	Bobby's Lake	McGowan Lake	Milliken Lake	Fredette Lake
	Brayden Lake	Milliken Lake	McKenzie Lake	Henday Lake
	Carys Lake	Moon Lake	Pasfield Lake	Lac Philip
	Colette Lake	Pasfield Lake	Riou Lake	Mallen Lake
	Cree Lake	Read Lake		Milliken Lake
	David Lake	Reference 2		Pasfield Lake
	East Spur Lake	Reference 3		Riou Lake
	Fredette Lake	Reference 4		Ryan Lake
	Kapesin Lake	Reference 5		Wapata Lake
	Kazz Lake	Riou Lake		West Spur Lake
	Lac Philip	Ryan Lake		
	Lake B	Shallow Lake		
	Lake C2	Slush Lake		
	Lake C3	Wapata Lake		
	Lake C4	West Spur Lake		
	Lake C5	White Lake		
	Lake C6	Yeoung Lake		
	Lake C7			

¹Not all areas were sampled all years.

²Five additional lake trout from 2005 from Henday Lake were added to improve sample sizes (n) for parameters that were less than the reporting detection limit (<RDL), namely arsenic, copper, iron, selenium, and zinc. These additional lake trout samples could not be used for other parameters because of large differences in RDLs in 2005 compared to later years.

³An additional 24 samples from Cree Lake, Henday Lake, McKenzie Lake, and Riou Lake were later included in 2015.

Historical data (2008 to 2011) available from the Athabasca Working Group (AWG) Environment Monitoring Program and the Uranium City Country Foods Program (CanNorth and SENES 2012) were utilized to generate the regional reference values for the berry data. Data from the AWG program were also used to establish regional reference ranges for the moose and barren-ground caribou data. In most cases, data from 2000 to 2010 were included in order to have adequate samples sizes; however, there were some situations where obvious and consistent changes in reporting detection limits (RDLs) precluded earlier data from being included.

Appendix A, Table 5

EARMP regional reference range data sources for berry and mammal chemistry.

Factor	Blueberries	Cranberries	Caribou Flesh	Moose Flesh	Snowshoe Hare Flesh
Years ¹	2000 to 2011	2000 to 2011	2000 to 2011	2000 to 2011	2011
Areas ¹	Black Lake Camsell Portage Fond Du Lac Stony Lake Stony Rapids Uranium City Wollaston Lake	Black Lake Bushell Bay Camsell Portage Fond Du Lac Stony Lake Stony Rapids Uranium City Wollaston Lake	Black Lake Camsell Portage Fond Du Lac Stony Rapids Uranium City Wollaston Lake	Black Lake Camsell Portage Fond Du Lac Stony Rapids Uranium City Wollaston Lake	Camsell Portage

¹Not all areas were sampled all years.

4.5.3.3 Human Health Risk Assessment

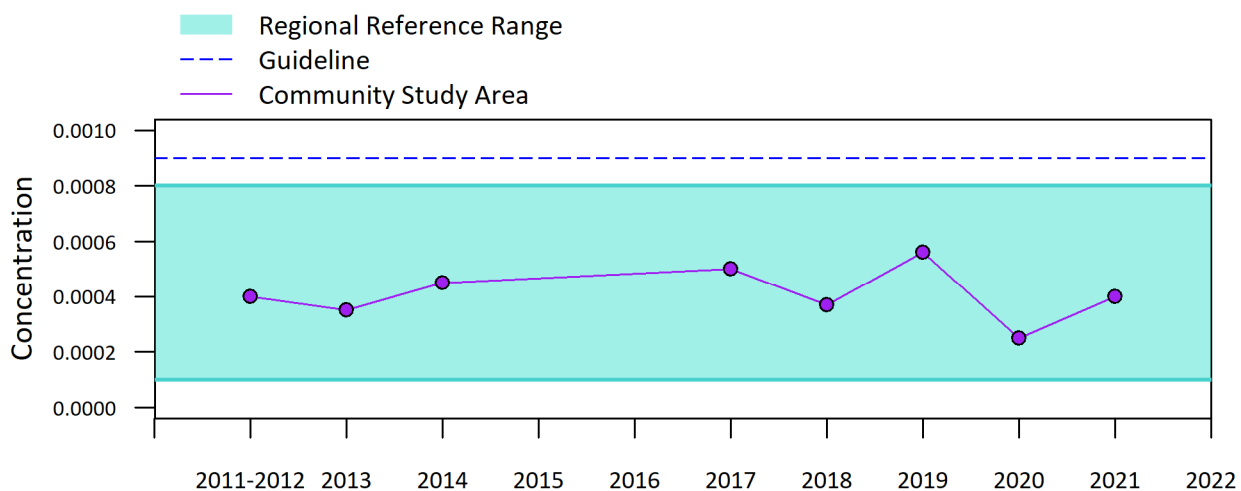
Human Health Risk Assessment is a scientific procedure that is used to assess the potential for adverse health effects to humans caused by a selected group of chemicals that are a concern. Risk assessments involve the application of a staged, formal, and reproducible process that incorporates procedures accepted by regulatory authorities. Through the completion of a Human Health Risk Assessment, it is possible to answer one of the primary questions of the EARMP community program: are country foods safe to eat?

The most recent Human Health Risk Assessment was completed in 2018 utilizing the 2011 to 2018 EARMP data and determined that the country foods were safe to eat in all communities assessed. In subsequent monitoring phases, if the levels of chemicals remain within the range of those measured during the baseline conditions, the Human Health Risk Assessment can be used as a basis for concluding if the country foods remain safe to eat. As more data become available, and potentially new types of country foods assessed, it may be necessary to complete a new Human Health Risk Assessment.

4.5.4 Data Presentation

The EARMP community data is presented using both summary tables and figures. Descriptive statistics (average and standard deviation) are calculated and reported for each chemical, media, and study area. A graphical presentation of the data is used to compare chemical concentrations to guidelines, the regional reference range, and baseline levels. Data are only graphed if >50% of the values are above the RDL.

The regional reference range has been re-assessed as the range between the 2.5% to 97.5% of the regional reference distribution (where 95% of the regional reference data are expected to fall), since it was determined the majority of the chemistry data is not normally distributed. The highest and lowest 2.5% of the reference data were identified using regression analysis of the cumulative percent frequencies of the observed reference concentrations. After identification, the highest and lowest 2.5% of the data were excluded and the remainder were used as the reference ranges representative of natural conditions. As more regional reference data becomes available, the ranges will be further refined.



Appendix A, Figure 2.

Example of how the EARMP community program results will be presented graphically during future monitoring campaigns.

Appendix A, Figure 2 shows a hypothetical figure that will be used to assess levels of chemicals in country foods. This figure provides information on guideline values, the regional reference range, and temporal changes in a single image for each chemical in each sampling component. The blue dotted line represents a guideline concentration (e.g., drinking water guidelines). The turquoise shaded area represents the regional reference range (i.e., reference average \pm 2 standard

deviations). The average concentration in the EARMP community sample is shown as a circle for the sampling years. The graph will be a very useful visual tool for assessing the EARMP community data against the comparison criteria at a glance. It will also allow for a qualitative assessment of increasing or decreasing concentrations of individual chemicals over time in each community.

5.0 REPORTING AND COMMUNICATION PLAN

A report will be completed to assess the EARMP community data following each monitoring year. The report will be structured so that the most relevant information is presented in the main document, with the detailed analysis presented in appendices. This will allow all potential audiences access to the information most relevant to them. The report, along with the raw data, will be available for download from the EARMP website: www.earmp.ca

In addition to the report, community visits may be completed to present the results of the monitoring program. Community visits may include presentations, distribution of summary brochures/calendars, school visits, and/or ads. The community visits will be an opportunity to receive feedback on the program and encourage to further involvement from community members. Feedback on the program can also be provided through the EARMP website. Since 2012, the EARMP has taken the opportunity to engage communities at least annually about their environment while also distributing information about the project.

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APPENDIX B

DETAILED DATA ANALYSIS

APPENDIX B: DETAILED DATA ANALYSIS

1.0 WATER QUALITY

The 2021 water quality data were assessed as per the data assessment approach described in detail in the EARMP community program framework (see Appendix A). Concentrations of the reduced chemical list were compared to:

1. Canadian Drinking Water Quality Guidelines (CDWQG; HC 2020) and the Saskatchewan Environmental Quality Guidelines (SEQG) for the protection of freshwater aquatic life (GS 2022);
2. regional reference data; and
3. previous monitoring phases.

Summaries of available guidelines, regional reference data, and the 2011 to 2021 EARMP community data are presented in Appendix B, Figure 1 and Appendix B, Table 1. Data were graphed if concentrations of a certain chemical were above the RDL in at least one community. If available, the CDWQG are presented on the graphs, since the EARMP community program is most concerned with human health. If CDWQG are not available for a certain chemical, then the SEQG were included on the graph. The detailed water chemistry results are presented in Appendix C, Table 1.

In 2021, concentrations of most chemicals were very low and in the case of the following chemicals the concentrations were at or below the lowest concentrations the laboratory can measure:

- Arsenic,
- Cadmium,
- Cobalt,
- Lead-210,
- Mercury,
- Polonium-210,
- Selenium,
- Thorium-230, and
- Vanadium.

All chemical concentrations measured near the communities were below available CDWQG or SEQG (Appendix B, Figure 1 and Appendix B, Table 1). The pH levels at all locations were within the guideline ranges. In addition, all chemicals were within the expected range for the region or similar to those measured during the baseline years with the only exceptions being some metals in the Fond du Lac sample (i.e., aluminum, copper, iron, lead, and zinc) which were higher in 2021 than previous years, but lower than the CDWQG and SEQG. It is not known why these levels were higher than in the past. Normally, a CanNorth staff member collects the water samples with assistance from a local community member; however, due to travel restrictions and health precautions taken during the COVID-19 pandemic, CanNorth was not present during sample collection in 2021 in Fond du Lac. Community members can be assured that all chemicals in the water from the Fond du Lac River will be monitored again during the 2022/2023 program. In addition, the results from the Fond du Lac River sampling location in the Stony Rapids study area did not show similar increases in the levels of metals in 2021.

Apart from the aforementioned Fond du Lac sample in 2021, there have been no apparent increases in the concentrations of the chemicals assessed in the community water samples since the baseline sampling years, and in addition, the last Human Health Risk Assessment (CanNorth 2018) indicated there was no risk; therefore, there are no concerns associated with the 2021 EARMP community water quality.

2.0 FISH CHEMISTRY

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

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

The data assessment followed the approach developed as part of the EARMP community framework (see Appendix A).

In 2021, five lake trout and five lake whitefish samples were targeted for collection and received from each community. A summary of fish descriptive statistics (length, weight, and age) is provided in Appendix B, Figure 2 and Appendix B, Figure 3. Summaries of available chemical concentrations measured in regional reference data, baseline data,

and the 2014 to 2021 EARMP community data are presented in Appendix B, Table 2. Data were graphed if >50% of the concentrations for a certain chemical were above the RDL in at least one community (Appendix B, Figure 4 and Appendix B, Figure 5). The detailed fish chemistry results are presented in Appendix C, Table 2.

Chemical concentrations in the community fish samples from 2021 were often so low that the laboratory could not measure the level. This was the case for aluminum, cadmium, cobalt, lead, molybdenum, nickel, vanadium, lead-210, polonium-210, radium-226, and thorium-230, in over half of the lake trout samples assessed in all of the communities. This was also the case for aluminum, cadmium, lead, molybdenum, nickel, vanadium, lead-210, radium-226, and thorium-230 in lake whitefish.

In lake trout, of those chemicals that were above the RDL, all were within the regional reference range and similar to concentrations measured during previous monitoring years, except mercury from Black Lake, which measured higher than the reference range and previous years but similar to the levels recorded in the Fond du Lac area in 2014. In lake whitefish, all chemicals above the RDL were within the reference range and similar to previous years, except arsenic in Uranium City and Wollaston/Hatchet Lake and selenium in Uranium City. For arsenic, the 2021 levels were greater than the reference range and previous years in the respective communities of Uranium City and Wollaston/Hatchet Lake; however, the levels were lower than past results from other EARMP communities, such as Fond du Lac in 2020, Black Lake in 2016, and Camsell Portage from 2011 to 2013. Selenium in lake whitefish from Uranium City was the highest recorded in 2021 and greater than all other communities as well as the reference range; however, the concentration remains low and well below the United States Environmental Protection Agency (U.S. EPA) selenium criterion for fish muscle tissue of 11.3 µg/g dry weight (U.S. EPA 2021) and the more recent Canadian fish whole-body environmental quality guideline of 6.7 µg/g dry weight. The 2021 Uranium City lake whitefish fish flesh when converted to dry weight averages 3.08 µg/g. Based on the information in the last Human Health Risk Assessment (HHRA; CanNorth 2018), the average adult can eat approximately 0.6 kg (1.2 pounds) of lake whitefish in a day with no concerns. While continuing to be below guidelines, results over the last few years have been increasingly variable. Upon completion of the 2022 sampling period, the complete Uranium City lake whitefish database (2011 to 2022) will be analysed for evidence of an increasing trend.

As there have been no other apparent increases in the concentrations of the chemicals assessed in the lake trout and lake whitefish community samples since the baseline sampling years, and in addition, the last HHRA indicated there was no risk, there are no concerns associated with the 2021 EARMP community fish quality. Mercury in lake trout from Black Lake, arsenic in lake whitefish from Uranium City and Wollaston/Hatchet Lake, and selenium in lake whitefish from Uranium City will be monitored again in 2022/2023 along with all chemicals in all communities.

3.0 MAMMAL CHEMISTRY

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

1. previous monitoring phases.

Summaries of available snowshoe hare chemical concentrations data are presented in Appendix B, Table 3. No comparisons are available to regional reference due to the limited number of samples available in the region. In 2021, snowshoe hare samples from Black Lake (n = 1), Fond du Lac (n = 3), Stony Rapids (n = 3), Uranium City (n = 3), and Hatchet Lake/Wollaston Lake (n = 3) were submitted for chemical analysis. Note that some snowshoe hare samples for the 2021 year were collected in the first months of 2022. Data were graphed if >50% of the concentrations for a certain chemical were above the RDL in at least one community (Appendix B, Figure 6). The raw chemistry results are presented in Appendix C, Table 8.

Concentrations of chemicals that were below the RDL in more than half of the samples in all communities included aluminum, arsenic, molybdenum, nickel, uranium, vanadium, lead-210, radium-226, and thorium-230. Of the chemicals that met the graphing criteria, only lead in Black Lake and polonium-210 in Wollaston/Hatchet Lake merit further discussion.

The lead concentration measured in the single 2021 snowshoe hare sample collected at Black Lake is clearly an outlier with respect to both historical collections for this site and the other sampling areas. Similar to moose and barren-ground caribou samples collected in previous years, the high lead result is believed to be due to contamination by lead ammunition. Results such as this are often an indicator of contamination by lead

ammunition. Contamination of traditional foods by lead-based ammunition was also identified as an issue by the First Nations Food, Nutrition and Environment study (Chan et al. 2021).

Consumers should be aware of the potential risk of eating game killed by lead shot, and hunters should consider using steel or other alternatives, rather than lead shot to avoid exposure to lead that could be hazardous to both children and adults. Studies have shown that lead gunshot undergoes fragmentation on impact with game and that lead fragments cause contamination of meat and increased exposure of lead to human consumers (Tsuji et al. 2008; Iqbal et al. 2009; Pain et al. 2010).

Though average polonium-210 measured higher in 2021 in Wollaston/Hatchet Lake than any previous year in any EARMP community, it is noted that previous individual samples from Stony Rapids (2021) and Uranium City (2014) were recorded at similar levels. In addition, they were lower than the baseline levels of polonium-210 in barren-ground caribou flesh from Black Lake, Fond du Lac, Stony Rapids, and Wollaston/Hatchet Lake.

4.0 BIRD CHEMISTRY

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

1. previous monitoring phases.

Summaries of available spruce grouse chemical concentrations data are presented in Appendix B, Table 4. No comparisons are available to regional reference or baseline due to the limited number of samples available in the region. In 2021, three spruce grouse samples were collected from each community. Note the spruce grouse samples for the 2021 year from Wollaston/Hatchet Lake were collected in the first months of 2022. Data were graphed if >50% of the concentrations for a certain chemical were above the RDL in at least one community (Appendix B, Figure 7). The raw chemistry results are presented in Appendix C, Table 9.

Levels of aluminum, arsenic, cadmium, cobalt, copper, nickel, uranium, vanadium, lead-210, and radium-226 were below RDLs in more than half of the spruce grouse samples from all communities. In all but one instance, the chemicals that measured above RDLs

were similar to 2017, the only other year spruce grouse were sampled. The exception was molybdenum in Camsell Portage, which measured higher than any level in any of the other communities from 2017 to 2021. Note there was no sample collected in 2017 from Camsell Portage to compare to. Upon closer review, the relatively high average level of molybdenum was due to only one of the three samples with the remaining two samples measuring near the RDL. Molybdenum along with all metals will be monitored again in spruce grouse from Camsell Portage the next time bird tissue is a focal item of the EARMP community program.

5.0 LITERATURE CITED

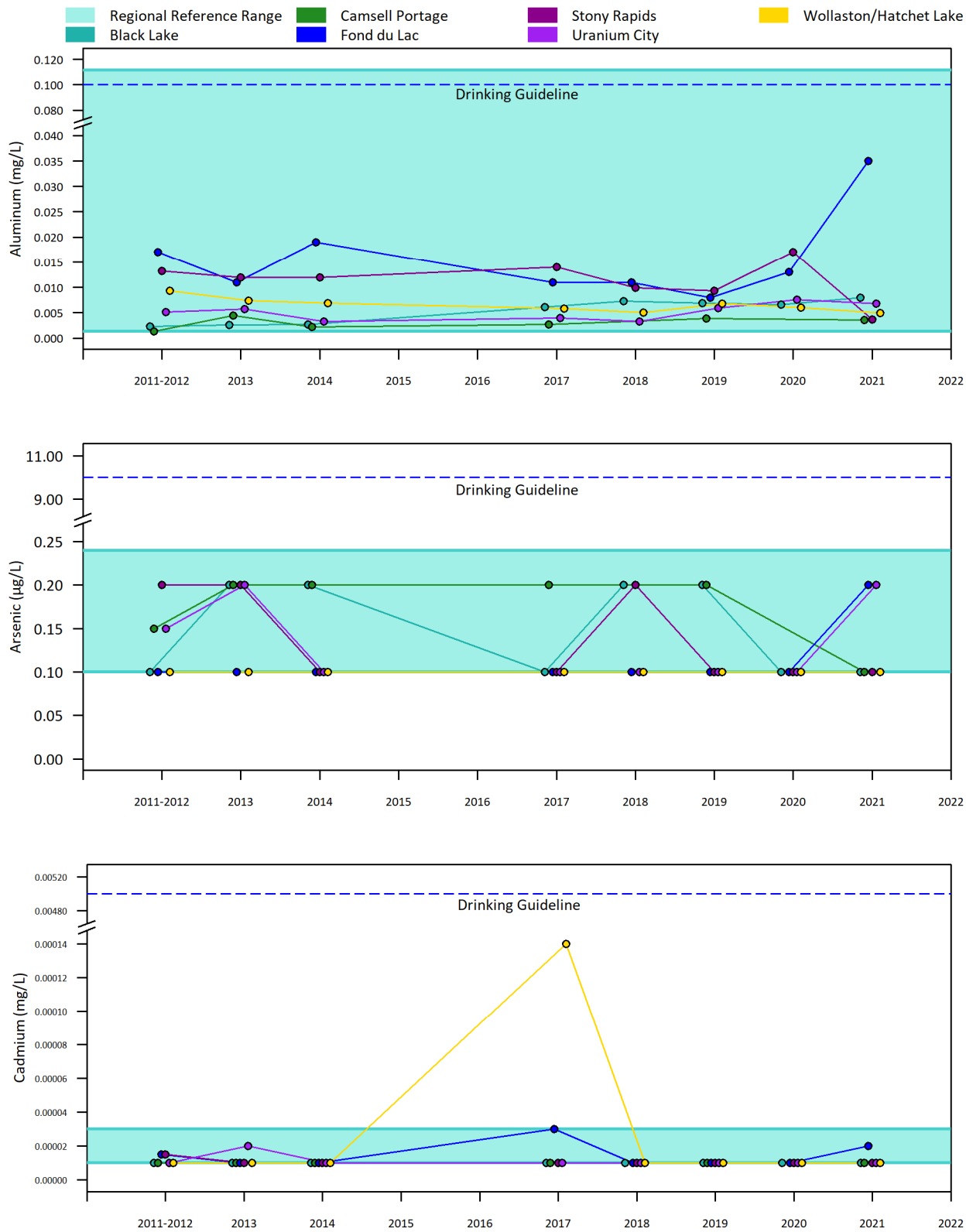
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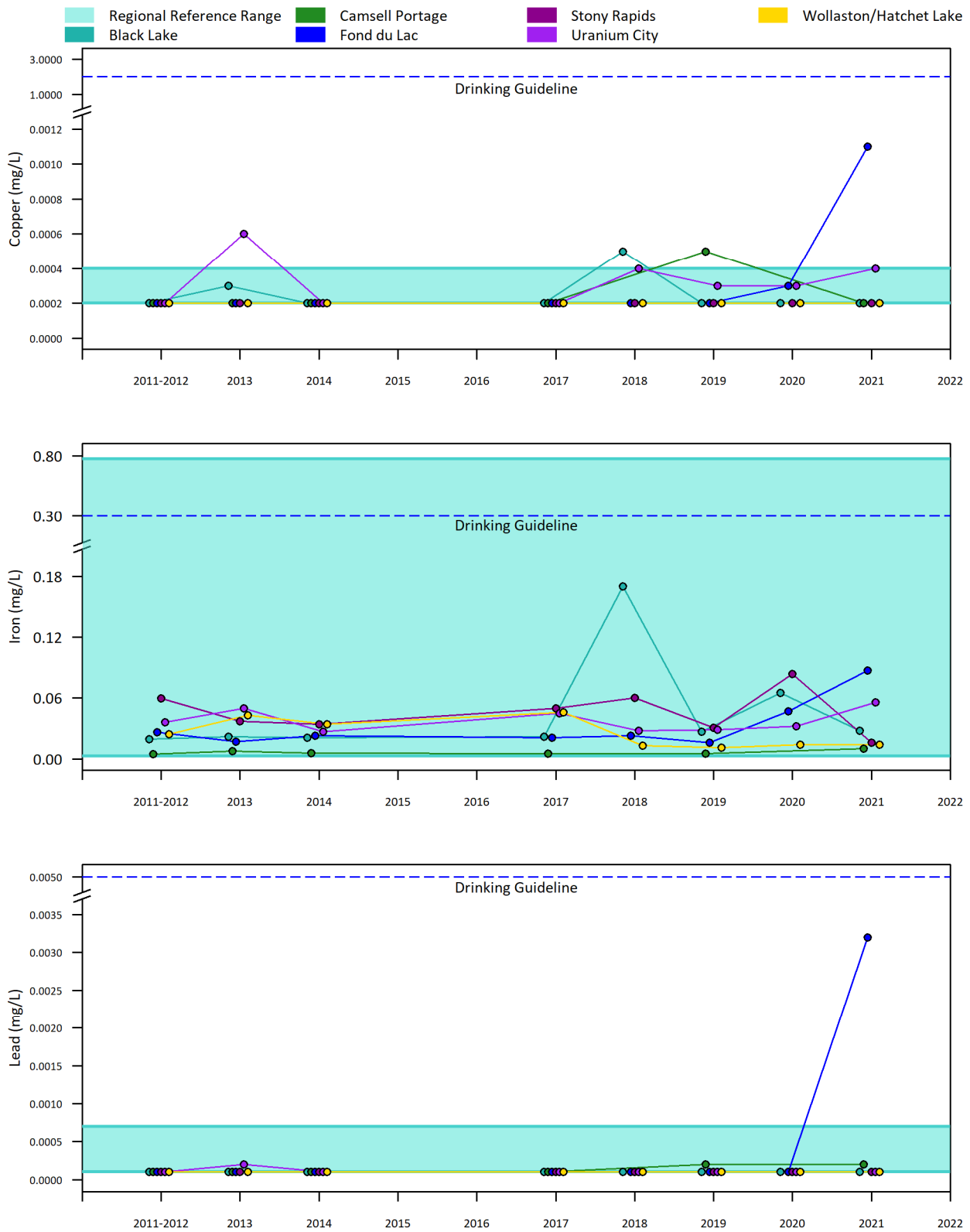
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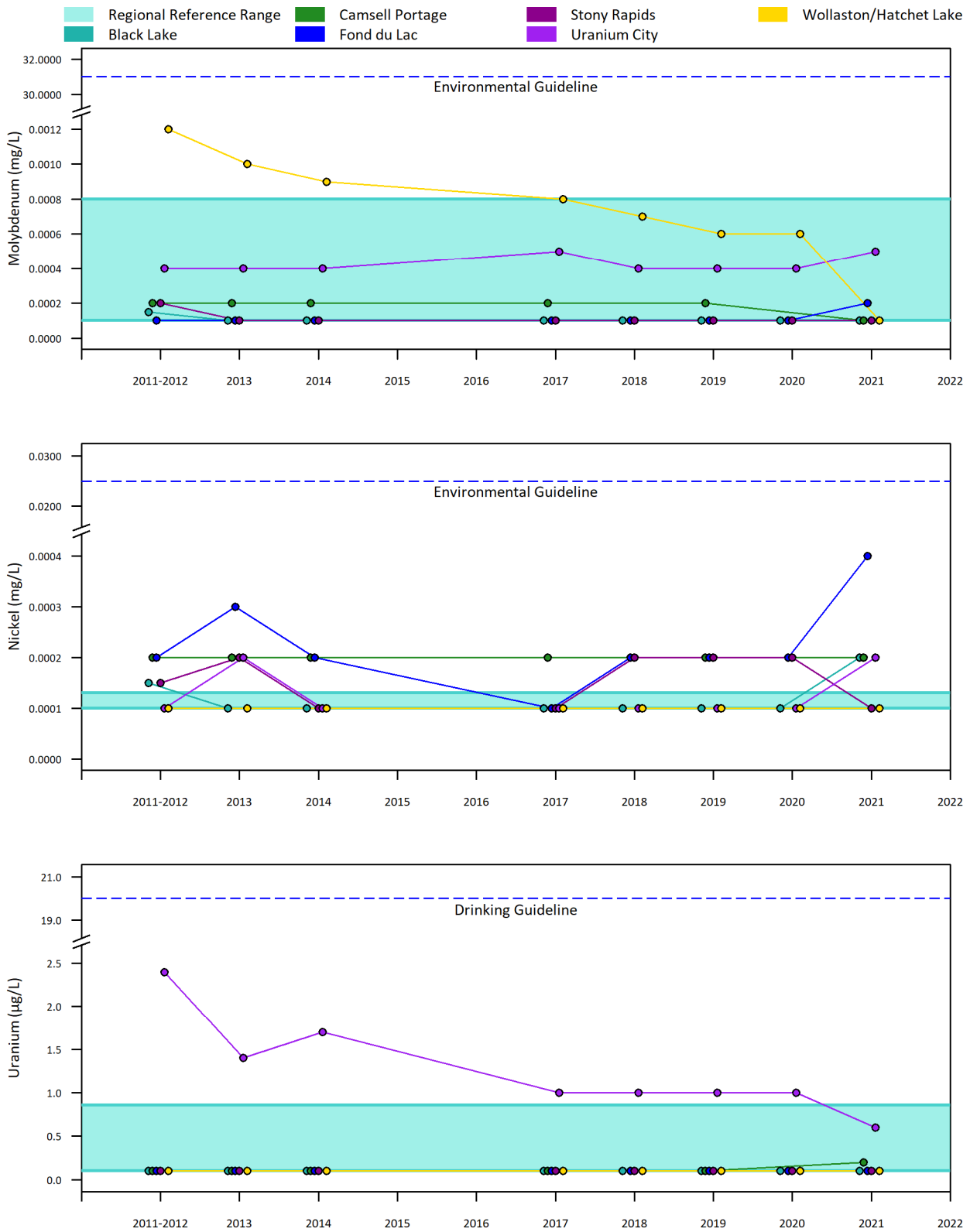
- Appendix B, Figure 1 Chemicals in water from the EARMP community study area, 2011 to 2021.
- Appendix B, Figure 2 Length, weight, and age of lake trout assessed by EARMP, 2011 to 2021.
- Appendix B, Figure 3 Length, weight, and age of lake whitefish assessed by EARMP, 2011 to 2021.
- Appendix B, Figure 4 Chemicals in lake trout from the EARMP community study areas, 2011 to 2021.
- Appendix B, Figure 5 Chemicals in lake whitefish from the EARMP community study areas, 2011 to 2021.
- Appendix B, Figure 6 Chemicals in snowshoe hare from the EARMP community study areas, 2011 to 2021.
- Appendix B, Figure 7 Chemicals in spruce grouse from the EARMP community study areas, 2017 to 2021.



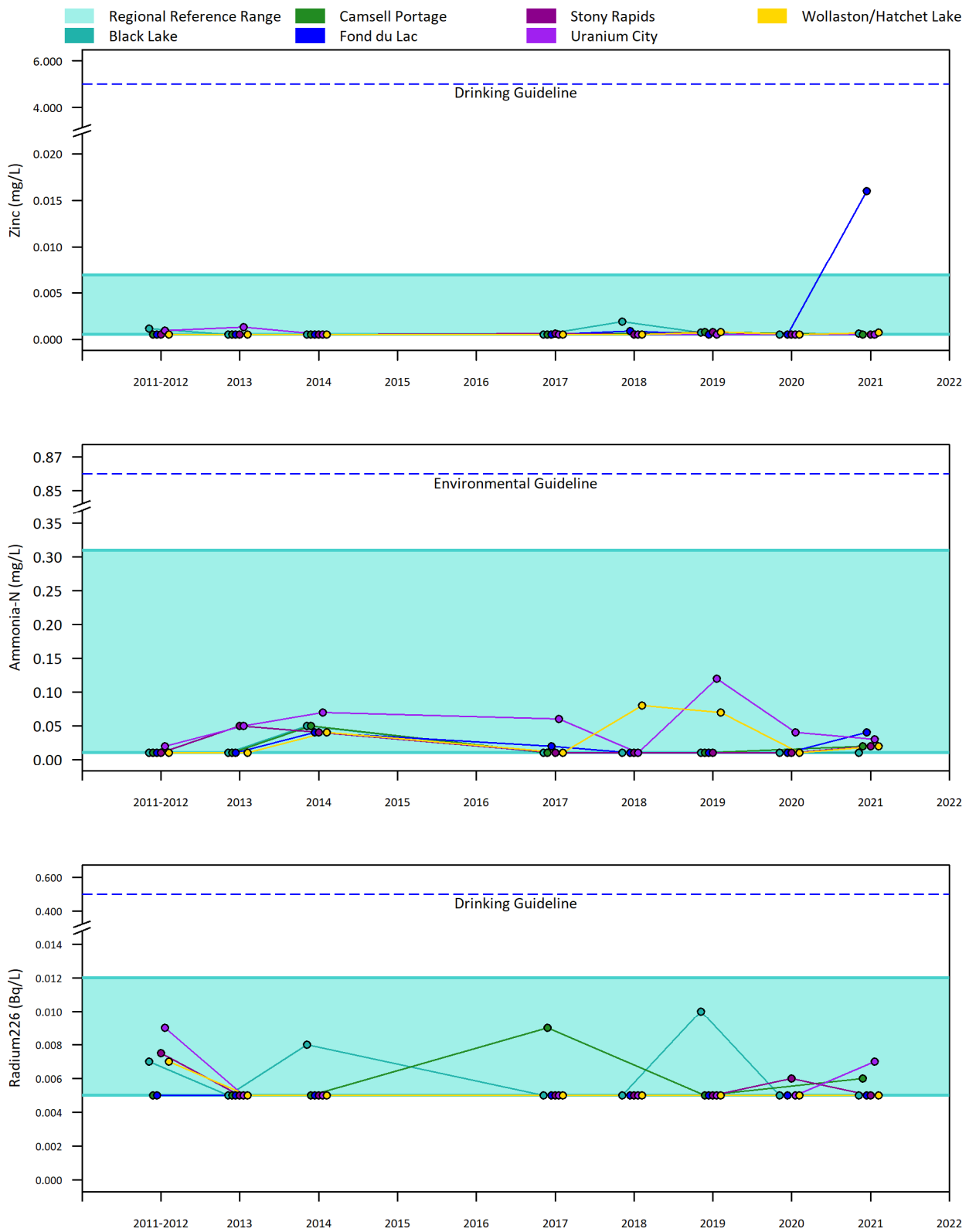
Appendix B, Figure 1
 Chemicals in water from the EARMP community study area, 2011 to 2021.



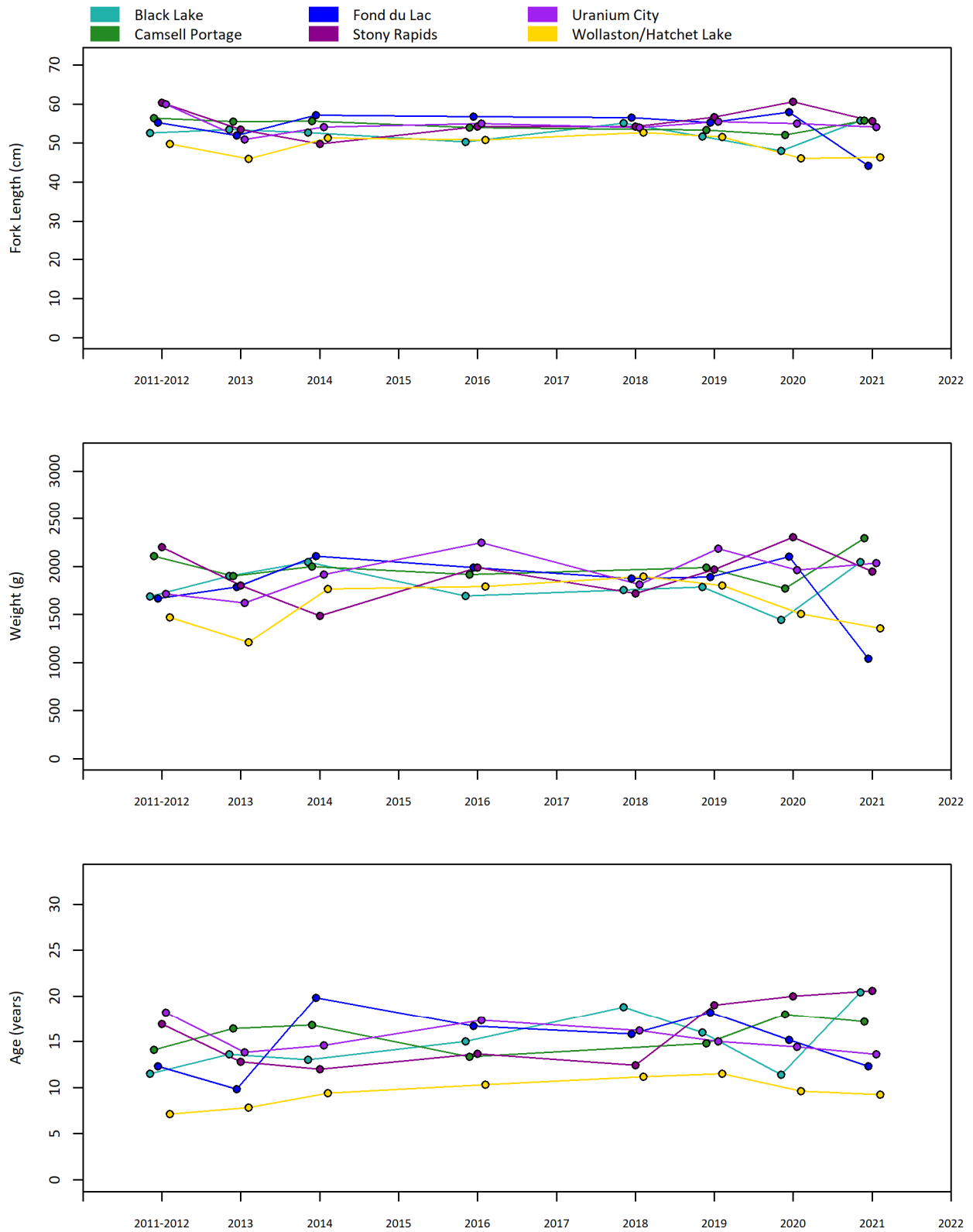
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 Chemicals in water from the EARMP community study area, 2011 to 2021.



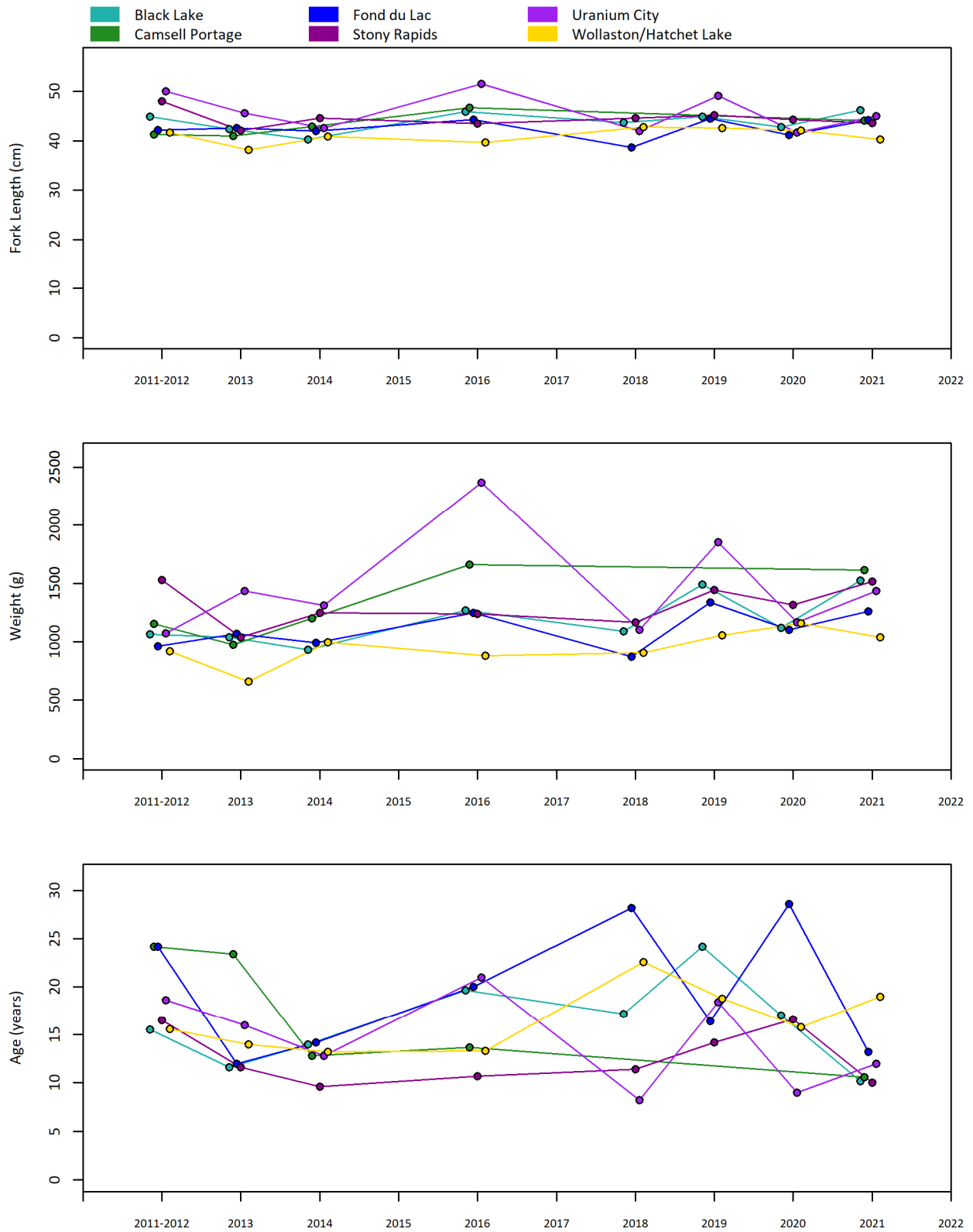
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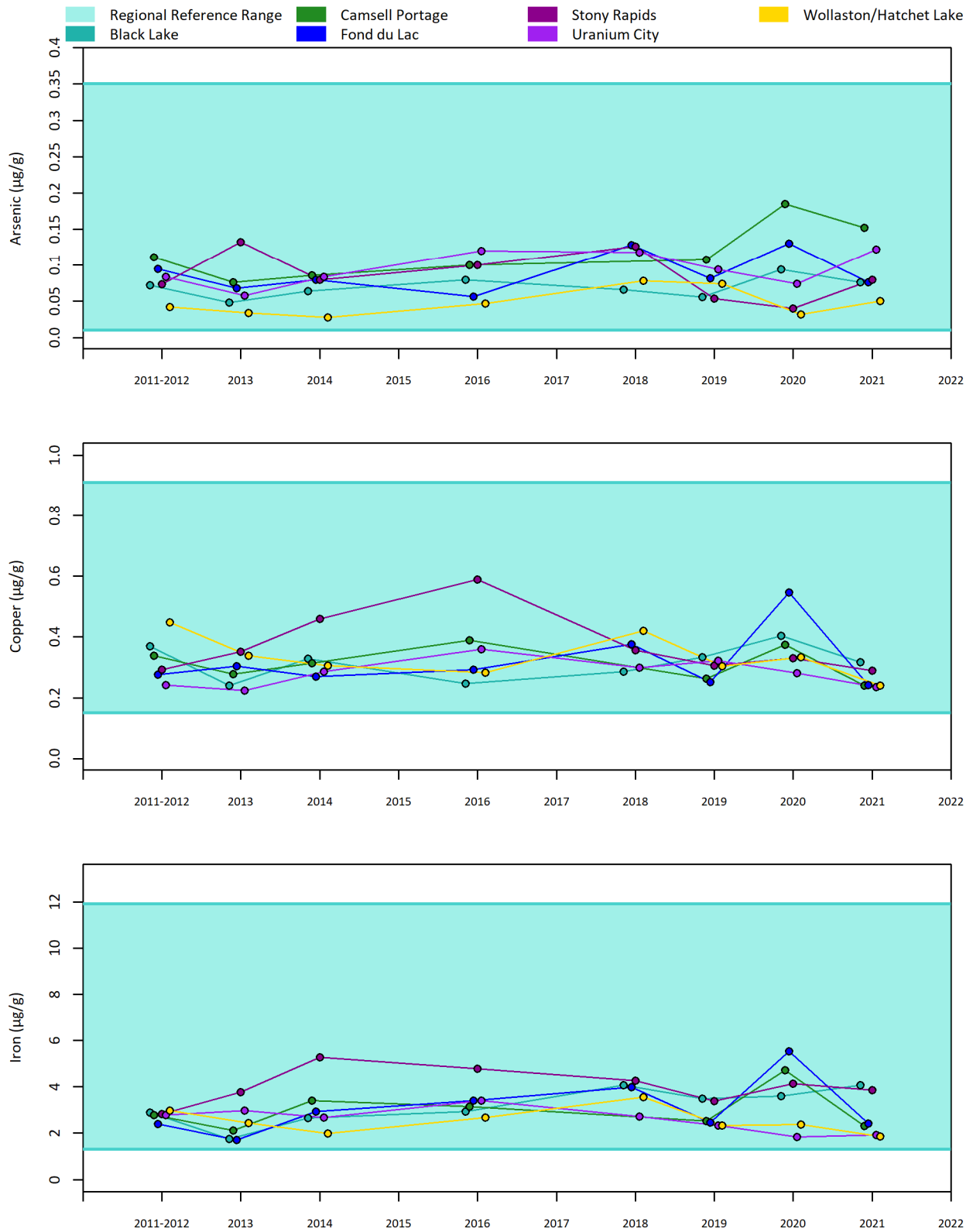
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 Chemicals in water from the EARMP community study area, 2011 to 2021.



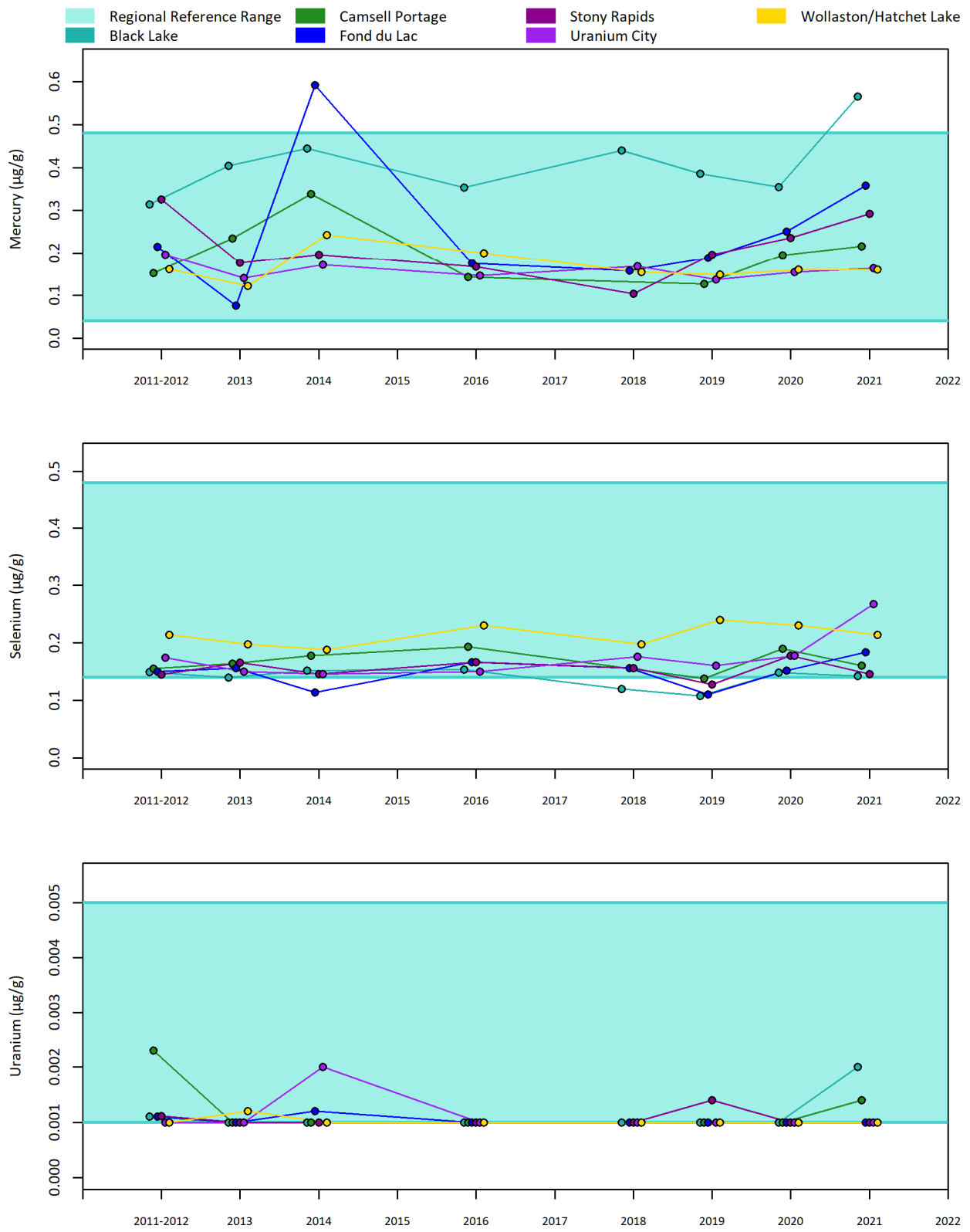
Appendix B, Figure 2
 Length, weight, and age of lake trout assessed by EARMP, 2011 to 2021.



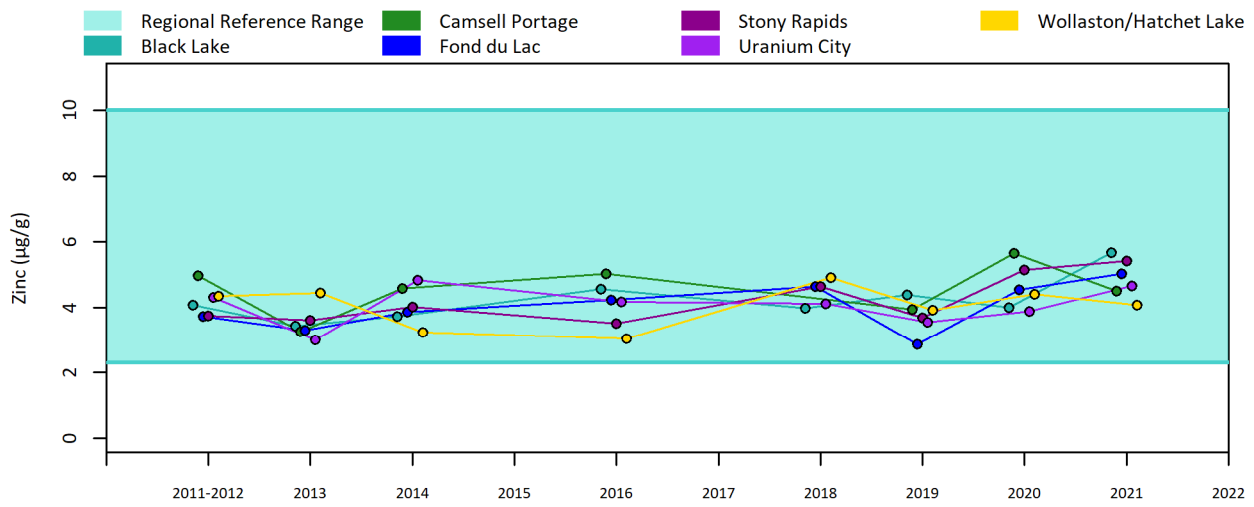
Appendix B, Figure 3
 Length, weight, and age of lake whitefish assessed by EARMF, 2011 to 2021.



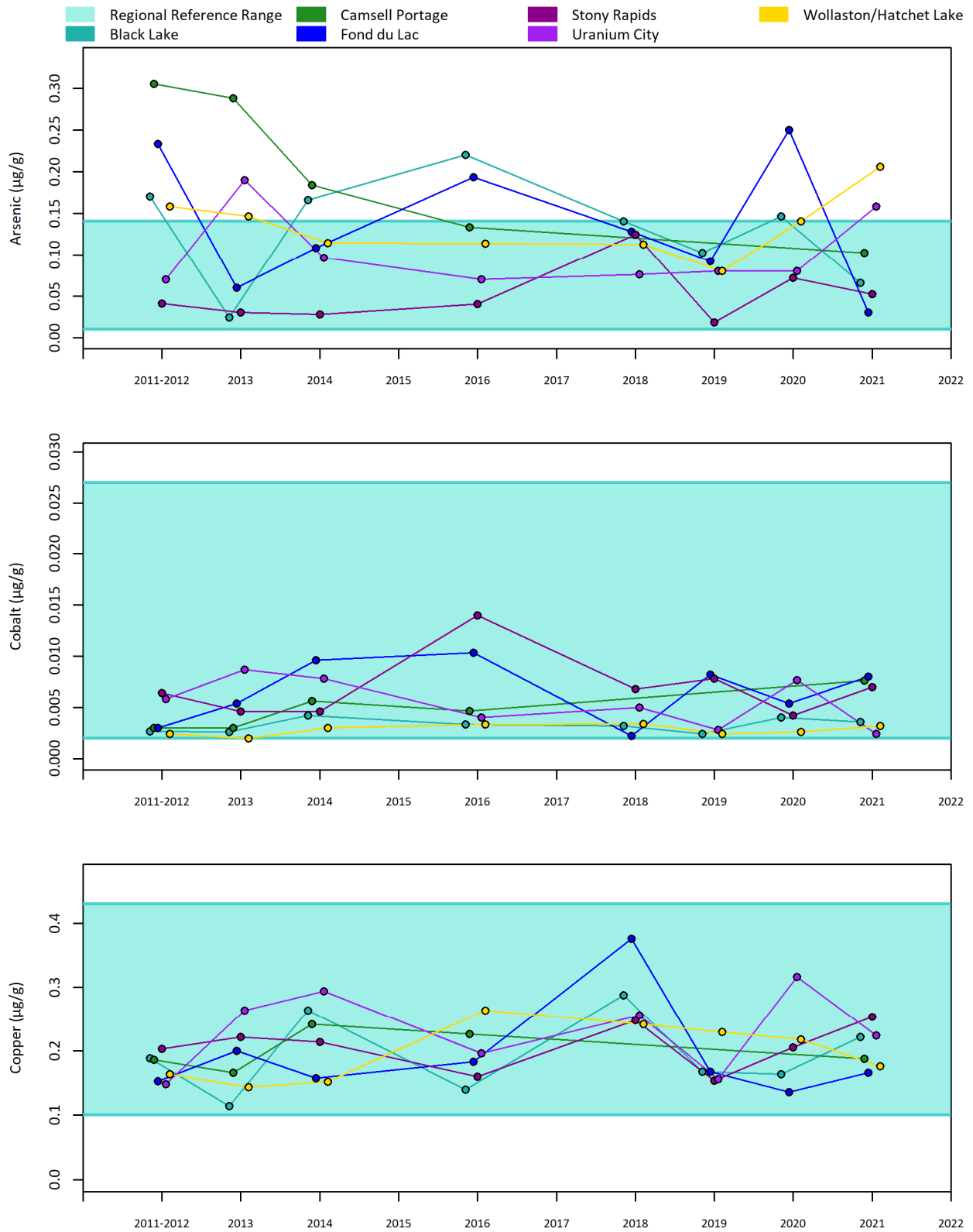
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 Chemicals in lake trout from the EARMP community study areas, 2011 to 2021.



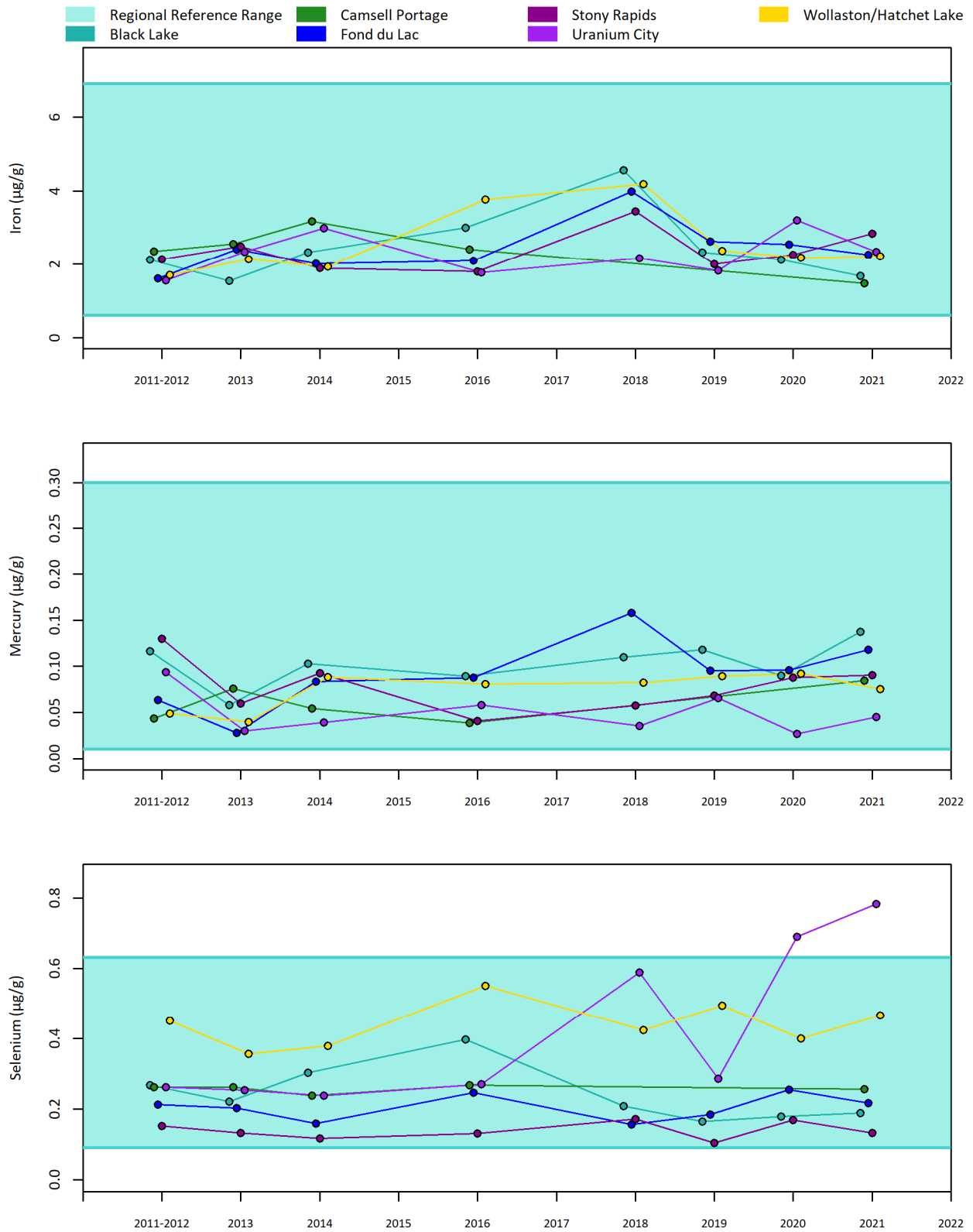
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 Chemicals in lake trout from the EARMP community study areas, 2011 to 2021.



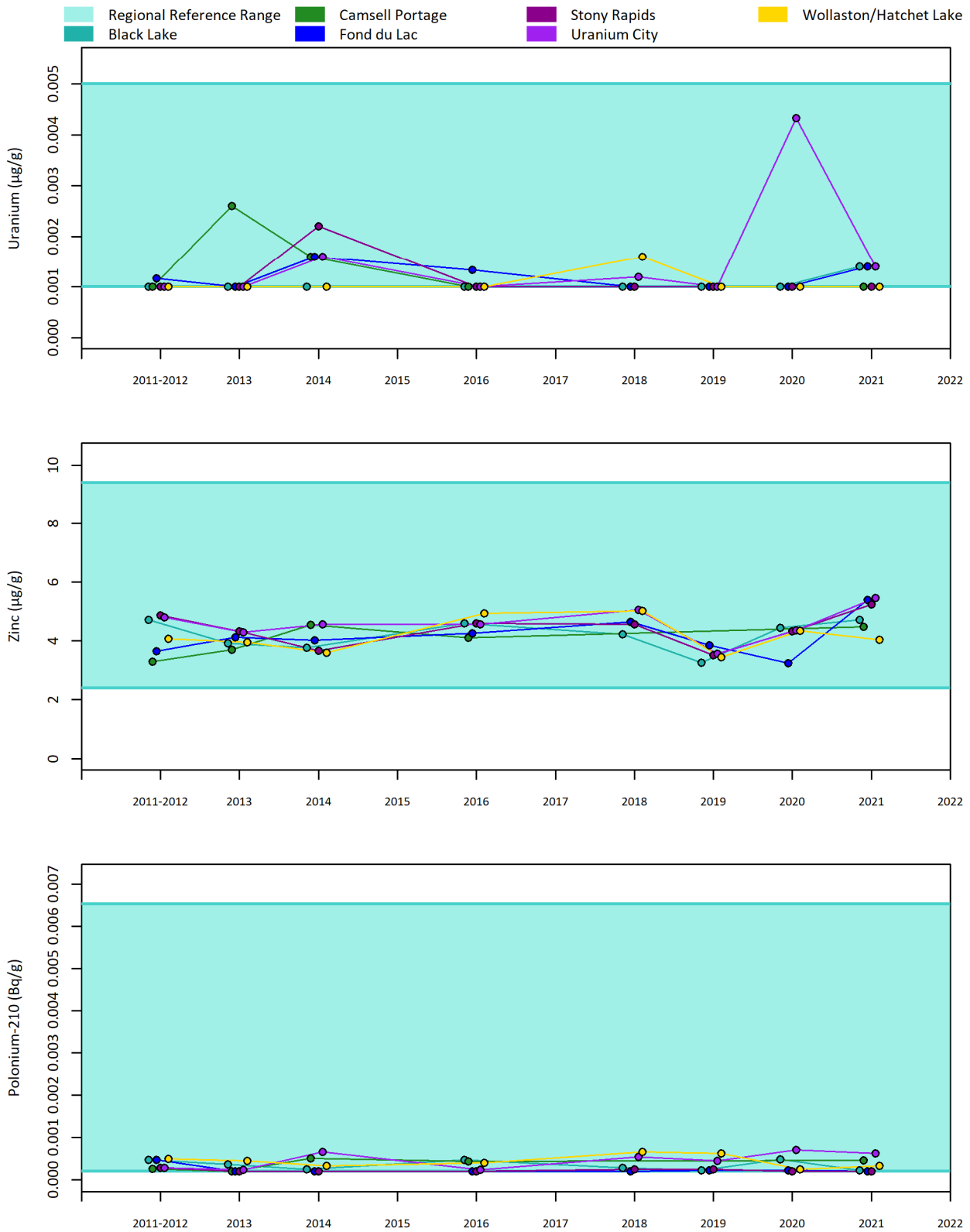
Appendix B, Figure 4
 Chemicals in lake trout from the EARMP community study areas, 2011 to 2021.



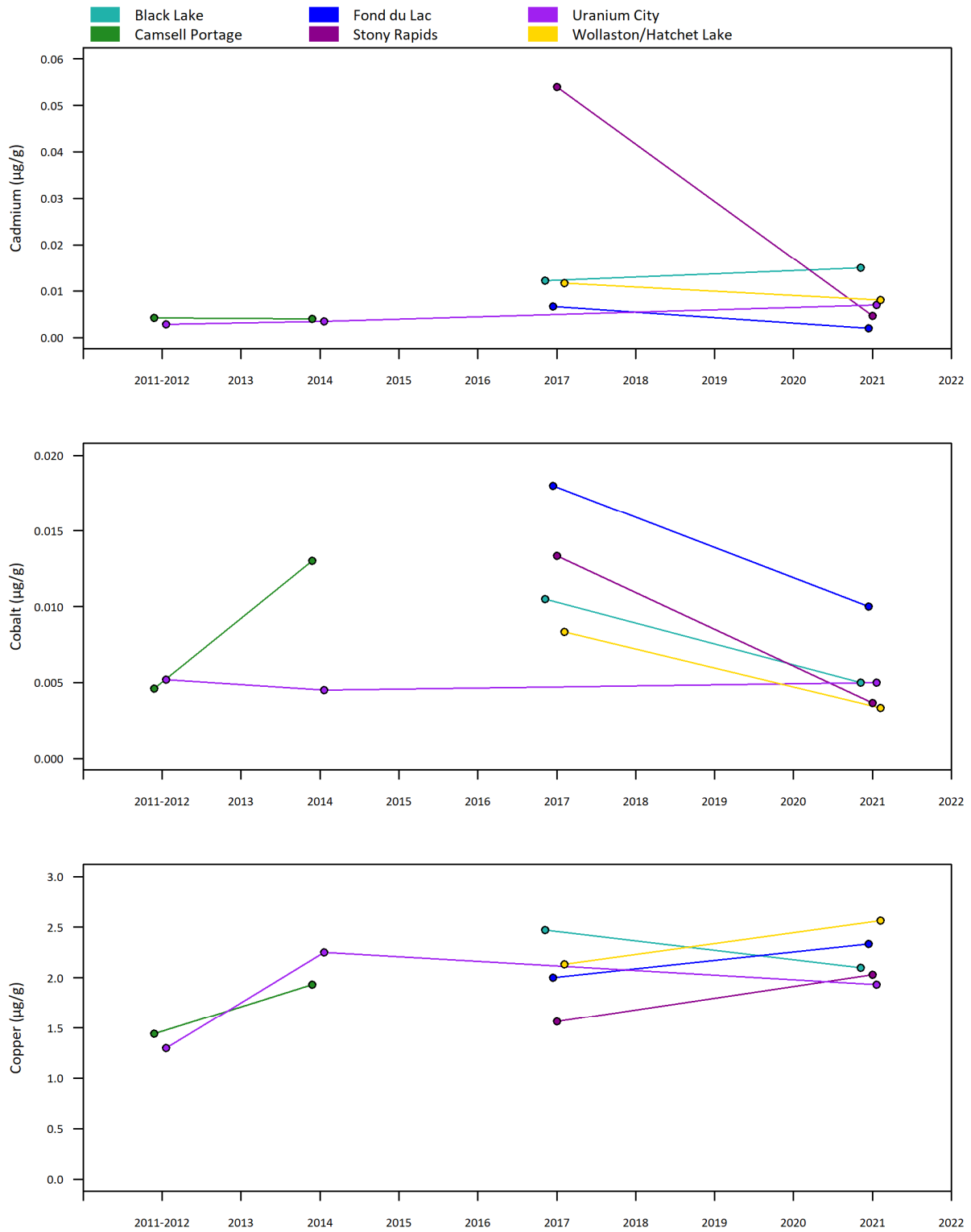
Appendix B, Figure 5
 Chemicals in lake whitefish from the EARMP community study areas, 2011 to 2021.



Appendix B, Figure 5
Chemicals in lake whitefish from the EARMP community study areas, 2011 to 2021.

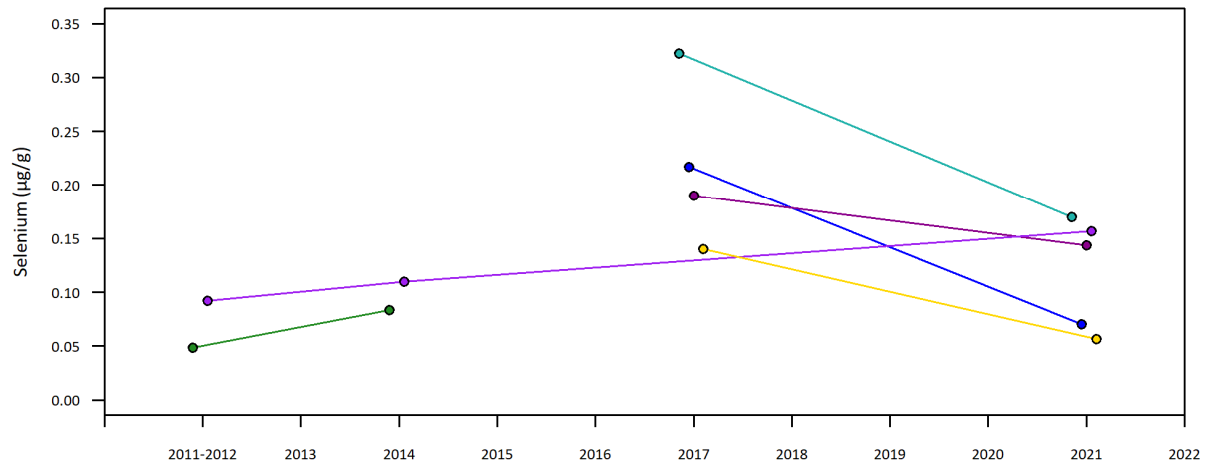
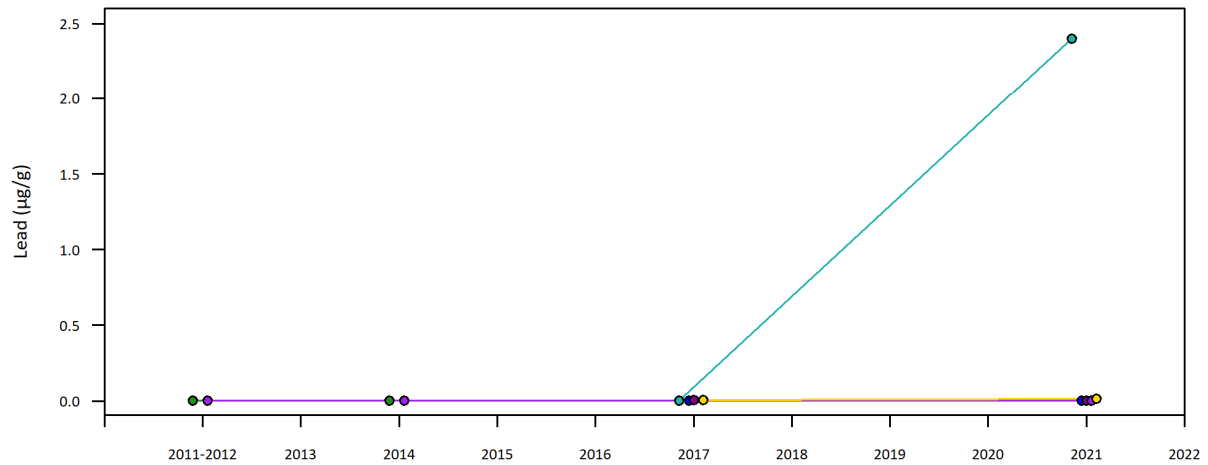
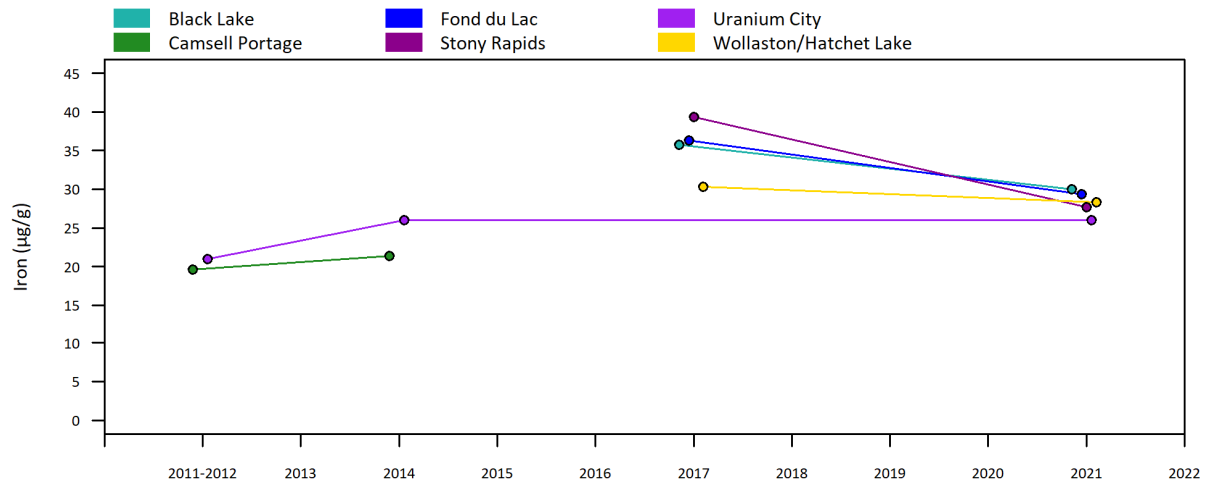


Appendix B, Figure 5
 Chemicals in lake whitefish from the EARMP community study areas, 2011 to 2021.



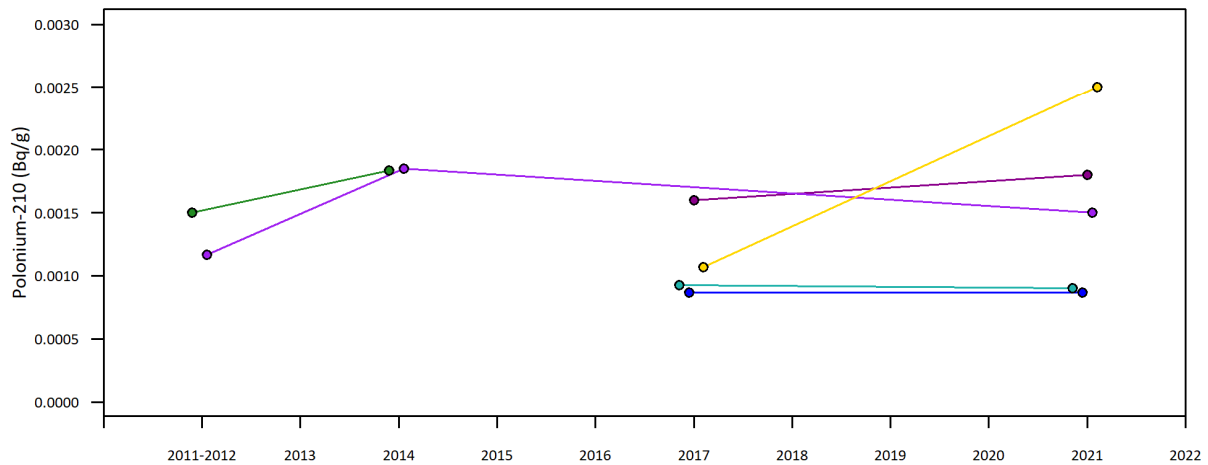
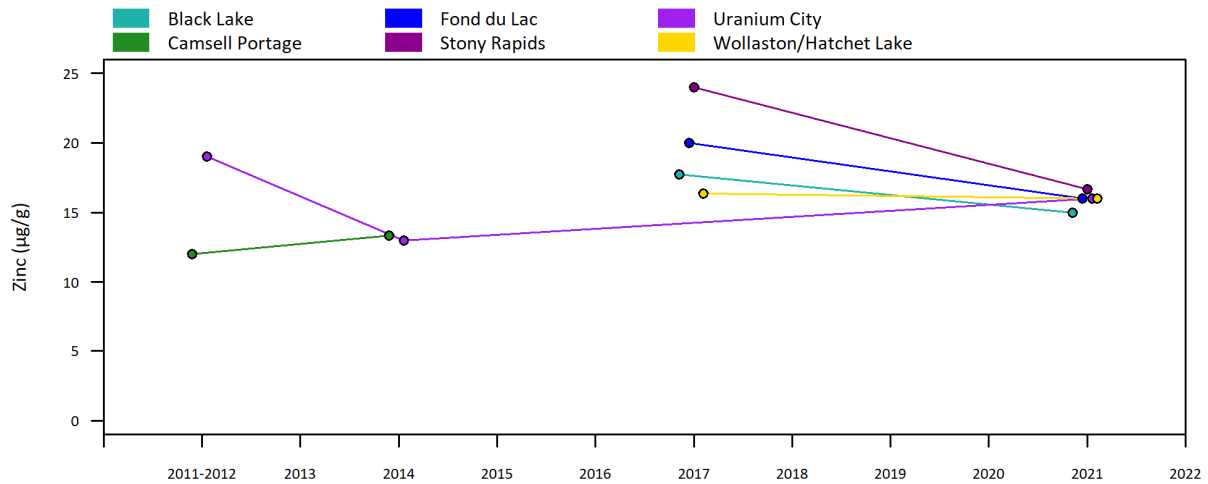
Appendix B, Figure 6
 Chemicals in snowshoe hare from the EARMP community study areas, 2011 to 2021.

Note: some 2021 snowshoe hare samples were collected in the early months of 2022.



Appendix B, Figure 6
Chemicals in snowshoe hare from the EARMP community study areas, 2011 to 2021.

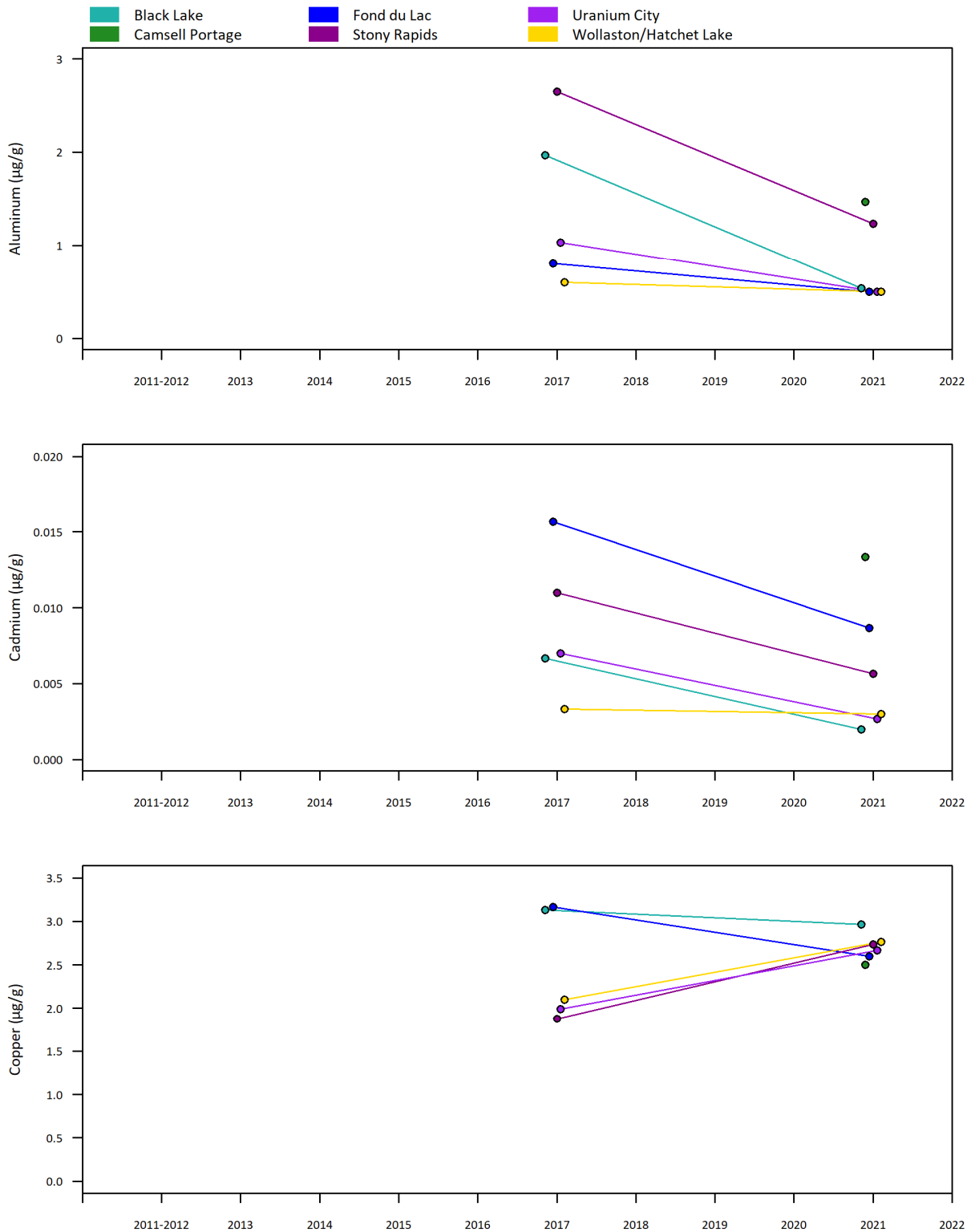
Note: some 2021 snowshoe hare samples were collected in the early months of 2022.



Appendix B, Figure 6

Chemicals in snowshoe hare from the EARMP community study areas, 2011 to 2021.

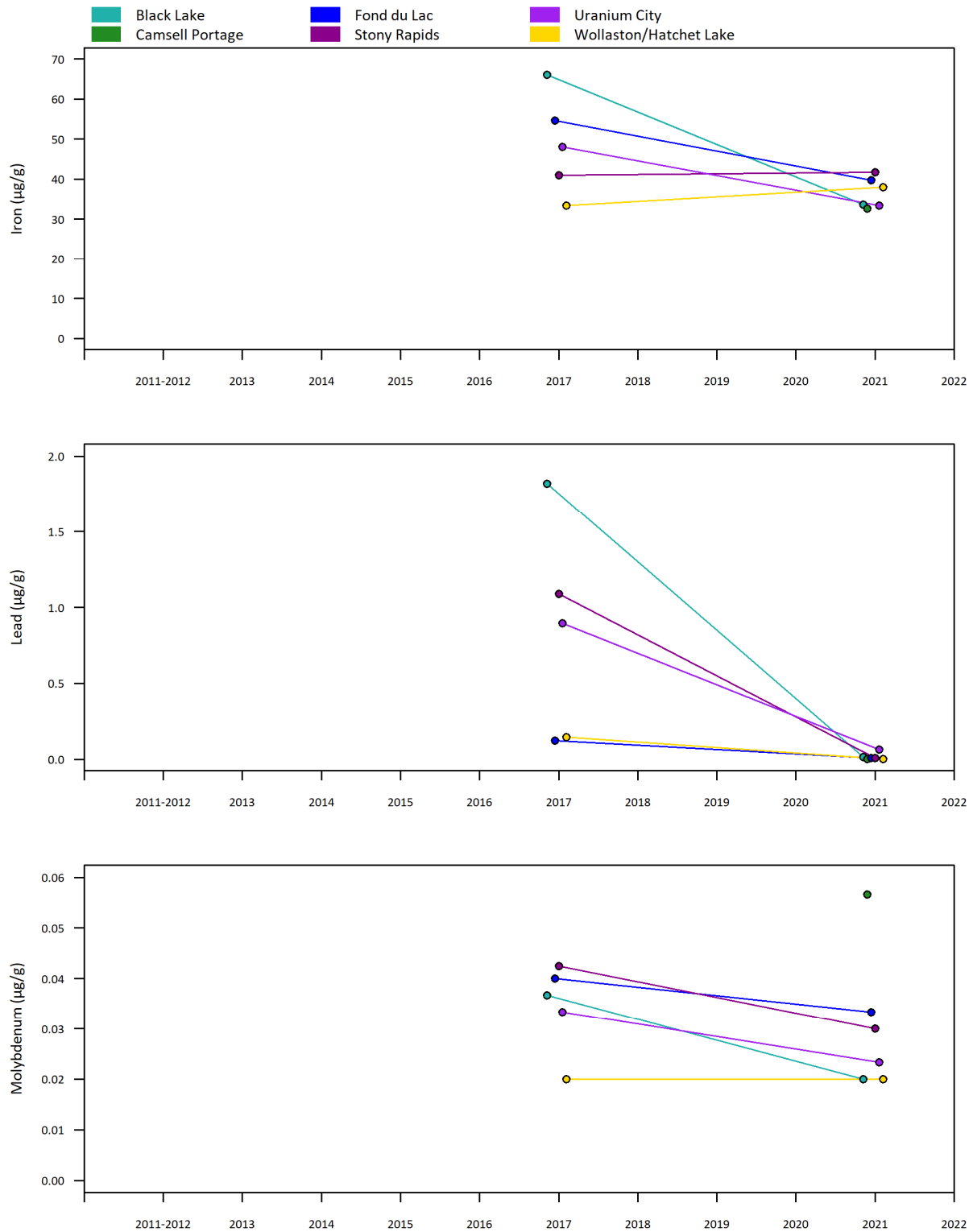
Note: some 2021 snowshoe hare samples were collected in the early months of 2022.



Appendix B, Figure 7

Chemicals in spruce grouse from the EARMP community study areas, 2017 to 2021.

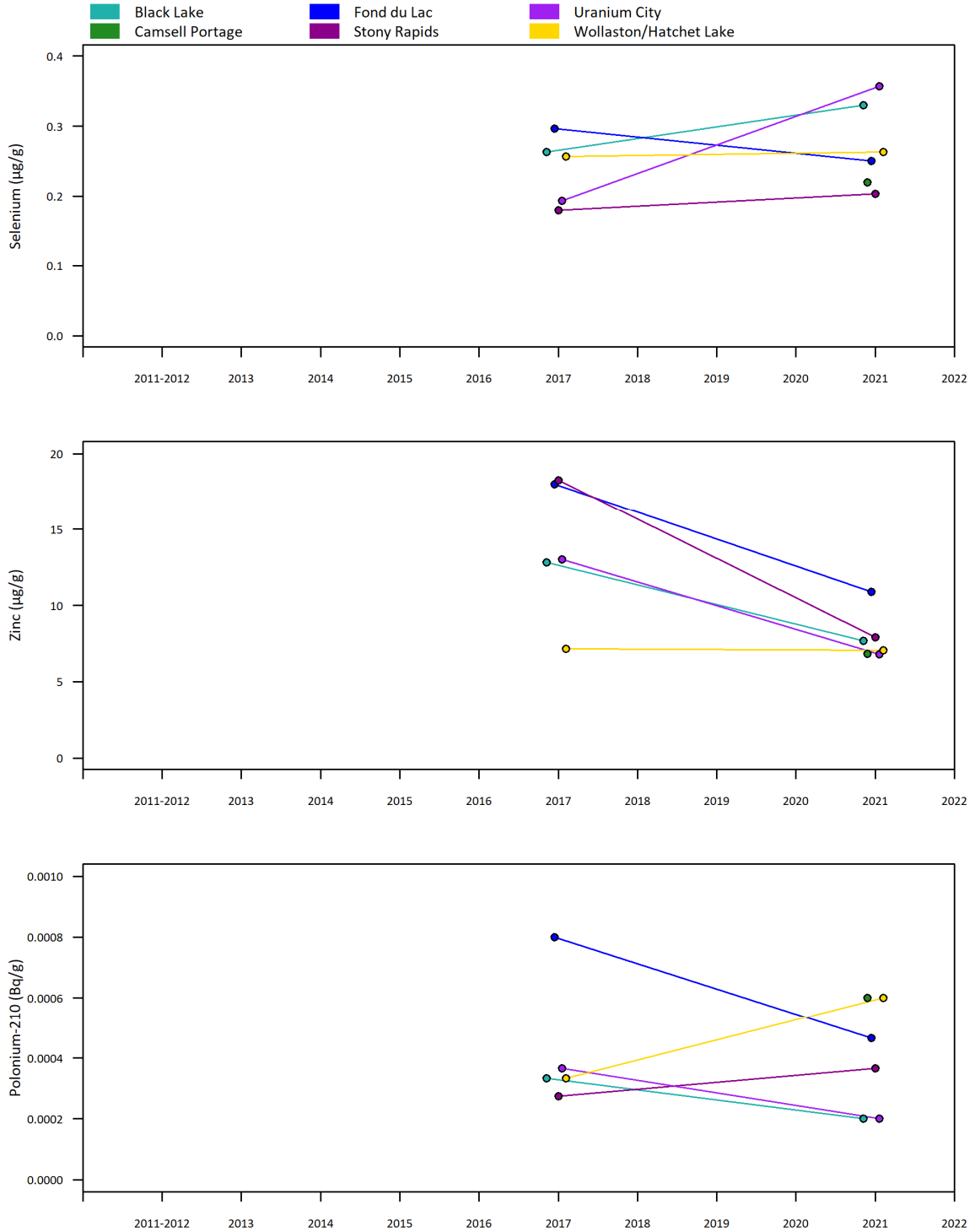
Note: the 2021 spruce grouse samples from Wollaston/Hatchet Lake were collected in the early months of 2022.



Appendix B, Figure 7

Chemicals in spruce grouse from the EARMP community study areas, 2017 to 2021.

Note: the 2021 spruce grouse samples from Wollaston/Hatchet Lake were collected in the early months of 2022.



Appendix B, Figure 7

Chemicals in spruce grouse from the EARMP community study areas, 2017 to 2021.

Note: the 2021 spruce grouse samples from Wollaston/Hatchet Lake were collected in the early months of 2022.

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Appendix B, Table 1
 Fall water chemistry results for the EARMP community program, 2011 to 2021.

Chemical ¹	SEQG ²	CDWQ ³	Black Lake									Camsell Portage							
			Black Lake									Ellis Bay, Lake Athabasca							
			2011	2012	2013	2014	2017	2018	2019	2020	2021	2011	2012	2013	2014	2017	2019	2021	
Metals																			
Aluminum ⁴	0.1	0.1	0.002	0.0026	0.0026	0.0027	0.0061	0.0073	0.0069	0.0066	0.008	0.0016	0.001	0.0044	0.0022	0.0027	0.0039	0.0036	
Arsenic (µg/L)	5	10	0.1	0.1	0.2	0.2	<0.1	0.2	0.2	0.1	<0.1	0.1	0.2	0.2	0.2	0.2	0.2	<0.1	
Cadmium ⁵	0.00004 to 0.00006	0.005	0.00001	0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	0.00001	0.00001	<0.00001	<0.00001	0.00001	<0.00001	<0.00001	
Cobalt ⁶	0.00078	-	<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	
Copper ⁵	0.002	1	<0.0002	<0.0002	0.0003	<0.0002	<0.0002	0.0005	<0.0005	<0.0002	0.0002	<0.0002	0.0002	<0.0002	<0.0002	0.0002	0.0005	0.0002	
Iron	0.3	0.3	0.026	0.013	0.022	0.021	0.022	0.17	0.027	0.065	0.028	0.0049	0.0044	0.0078	0.0056	0.0054	0.0052	0.01	
Lead ⁵	0.001	0.01	<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	0.0002	
Mercury (µg/L)	0.026	1	<0.01	<0.01	<0.01	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.01	<0.01	<0.01	<0.01	<0.001	<0.001	<0.001	
Molybdenum ⁷	31	-	0.0002	0.0001	0.0001	0.0001	0.0001	<0.0001	0.0001	<0.0001	0.0001	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	<0.0001	
Nickel ⁵	0.025	-	0.0002	0.0001	0.0001	<0.0001	0.0001	0.0001	0.0001	0.0001	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	
Selenium	0.001	0.05	<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	
Uranium (µg/L)	15	20	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	0.1	0.1	<0.1	0.2	
Vanadium ⁶	0.12	-	<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	
Zinc	0.03	5	0.0018	<0.0005	<0.0005	<0.0005	<0.0005	0.0019	0.0007	<0.0005	0.0006	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.0008	<0.0005	
Nutrients																			
Ammonia as N ⁸	0.86 to 84	-	<0.01	<0.01	<0.01	0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.05	<0.01	<0.01	0.02
Physical Properties																			
pH (pH units)	6.5 to 9.0	7.0 to 10.5	7.12	7.18	7.38	6.76	7.34	7.48	7.08	7.05	7.05	7.46	7.50	7.71	7.26	7.70	7.49	7.58	
Sp. Cond. (uS/cm)	-	-	40	38	38	43	29	28	31	26	30	66	69	69	73	66	63	70	
Total Hardness	-	-	14	13	29	14	12	13	12	12	10	26	26	47	27	26	26	27	
Radionuclides																			
Lead-210 (Bq/L)	-	0.2	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.02	<0.02	<0.02	<0.02	
Polonium-210 (Bq/L)	-	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	
Radium-226 (Bq/L)	0.11	0.5	<0.005	0.009	<0.005	0.008	<0.005	<0.005	0.01	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.009	<0.005	0.006	
Thorium-230 (Bq/L)	-	-	<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	

Appendix B, Table 1
 Fall water chemistry results for the EARMF community program, 2011 to 2021.

Chemical ¹	SEQG ²	CDWQ ³	Fond du Lac										Stony Rapids									
			Fond du Lac River										Fond du Lac River									
			2011	2012	2013	2014	2017	2018	2019	2020	2021	2011	2012	2013	2014	2017	2018	2019	2020	2021		
Metals																						
Aluminum ⁴	0.1	0.1	0.014	0.02	0.011	0.019	0.011	0.011	0.008	0.013	0.035	0.018	0.0084	0.012	0.012	0.014	0.0099	0.0093	0.017	0.0037		
Arsenic (µg/L)	5	10	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.1	0.1	<0.1		
Cadmium ⁵	0.00004 to 0.00006	0.005	0.00002	<0.00001	0.00001	<0.00001	0.00003	0.00001	<0.00001	<0.00001	0.00002	0.00002	<0.00001	0.00001	<0.00001	0.00001	0.00001	<0.00001	<0.00001	<0.00001		
Cobalt ⁶	0.00078	-	<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	<0.0001	<0.0001		
Copper ⁵	0.002	1	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.0002	0.0002	0.0003	0.0011	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.0002	0.0002	<0.0002	<0.0002		
Iron	0.3	0.3	0.023	0.03	0.017	0.023	0.021	0.023	0.016	0.047	0.087	0.074	0.045	0.037	0.034	0.05	0.06	0.031	0.084	0.016		
Lead ⁵	0.001	0.01	<0.0001	<0.0001	<0.0001	0.0001	<0.0001	<0.0001	<0.0001	<0.0001	0.0032	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001		
Mercury (µg/L)	0.026	1	<0.01	<0.01	<0.01	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.01	<0.01	<0.01	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001		
Molybdenum ⁷	31	-	0.0001	0.0001	0.0001	<0.0001	0.0001	0.0001	0.0001	0.0001	0.0002	0.0002	0.0002	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001		
Nickel ⁵	0.025	-	0.0002	0.0002	0.0003	0.0002	0.0001	0.0002	0.0002	0.0002	0.0004	0.0002	0.0001	0.0002	0.0001	0.0001	0.0002	0.0002	0.0002	0.0001		
Selenium	0.001	0.05	<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	<0.0001	<0.0001		
Uranium (µg/L)	15	20	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1		
Vanadium ⁶	0.12	-	<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	<0.0001	<0.0001		
Zinc	0.03	5	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.0009	<0.0005	<0.0005	0.016	<0.0005	<0.0005	<0.0005	<0.0005	0.0006	<0.0005	0.0008	<0.0005	<0.0005		
Nutrients																						
Ammonia as N ⁸	0.86 to 84	-	<0.01	<0.01	<0.01	0.04	0.02	<0.01	<0.01	<0.01	0.04	<0.01	<0.01	0.05	0.04	0.01	<0.01	<0.01	<0.01	0.02		
Physical Properties																						
pH (pH units)	6.5 to 9.0	7.0 to 10.5	7.22	7.14	6.86	6.88	7.32	7.48	7.15	7.16	7.28	7.30	7.30	7.38	6.89	7.39	7.53	7.13	7.08	7.13		
Sp. Cond. (uS/cm)	-	-	39	44	42	44	32	28	32	27	27	39	40	36	38	28	25	27	25	36		
Total Hardness	-	-	14	15	15	15	13	13	13	13	11	13	14	31	13	12	12	12	12	11		
Radionuclides																						
Lead-210 (Bq/L)	-	0.2	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02		
Polonium-210 (Bq/L)	-	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.006	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005		
Radium-226 (Bq/L)	0.11	0.5	<0.005	<0.005	<0.005	<0.005	0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.01	<0.005	<0.005	<0.005	<0.005	<0.005	0.006	<0.005		
Thorium-230 (Bq/L)	-	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		

Appendix B, Table 1
Fall water chemistry results for the EARMP community program, 2011 to 2021.

Chemical ¹	SEQG ²	CDWQ ³	Uranium City									Wollaston Lake/Hatchet Lake								
			Fredette River									Welcome Bay, Wollaston Lake								
			2011	2012	2013	2014	2017	2018	2019	2020	2021	2011	2012	2013	2014	2017	2018	2019	2020	2021
Metals																				
Aluminum ⁴	0.1	0.1	0.0051	0.0051	0.0057	0.0033	0.004	0.0033	0.0059	0.0076	0.0068	0.0047	0.014	0.0074	0.0069	0.0058	0.005	0.0068	0.006	0.0049
Arsenic (µg/L)	5	10	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.2	<0.1	<0.1	0.1	0.1	0.1	<0.1	0.1	<0.1	<0.1
Cadmium ⁵	0.00004 to 0.00014	0.005	0.00001	0.00001	0.00002	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	0.00001	0.00001	<0.00001	<0.00001	<0.00001	0.00014	<0.00001	<0.00001	<0.00001	<0.00001
Cobalt ⁶	0.00078 to 0.00092	-	<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	<0.0001	<0.0001
Copper ⁵	0.002	1	<0.0002	<0.0002	0.0006	<0.0002	<0.0002	0.0004	0.0003	0.0003	0.0004	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Iron	0.3	0.3	0.031	0.041	0.05	0.027	0.045	0.028	0.029	0.032	0.056	0.014	0.035	0.043	0.034	0.046	0.013	0.011	0.014	0.014
Lead ⁵	0.001	0.01	<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	<0.0001	<0.0001	<0.0001	<0.0001
Mercury (µg/L)	0.026	1	<0.01	<0.01	<0.01	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.01	<0.01	<0.01	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001
Molybdenum ⁷	31	-	0.0004	0.0004	0.0004	0.0004	0.0005	0.0004	0.0004	0.0004	0.0004	0.0005	0.0012	0.0012	0.001	0.0009	0.0008	0.0007	0.0006	0.0006
Nickel ⁵	0.025	-	0.0001	0.0001	0.0002	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
Selenium	0.001	0.05	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	<0.0001	<0.0001
Uranium (µg/L)	15	20	3.5	1.3	1.4	1.7	1	1	1	1	0.6	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Vanadium ⁶	0.12	-	<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	<0.0001	<0.0001
Zinc	0.03	5	0.0014	<0.0005	0.0013	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.0008	<0.0005	0.0007
Nutrients																				
Ammonia as N ⁸	0.86 to 84	-	<0.01	0.03	0.05	0.07	0.06	<0.01	0.12	0.04	0.03	<0.01	<0.01	<0.01	0.04	<0.01	0.08	0.07	<0.01	0.02
Physical Properties																				
pH (pH units)	6.5 to 9.0	7.0 to 10.5	7.75	7.72	7.94	7.46	8.00	8.11	7.72	7.72	7.71	7.1	7.12	7.37	6.91	7.38	7.53	7.11	7.14	7.15
Sp. Cond. (µS/cm)	-	-	114	112	113	114	102	98	101	92	91	34	37	34	36	32	27	30	25	29
Total Hardness	-	-	49	52	80	53	49	52	49	49	41	13	13	28	12	12	12	12	12	11
Radionuclides																				
Lead-210 (Bq/L)	-	0.2	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Polonium-210 (Bq/L)	-	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Radium-226 (Bq/L)	0.11	0.5	0.008	0.01	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.007	<0.005	0.009	<0.005	<0.005	<0.005	<0.005	0.005	<0.005	<0.005
Thorium-230 (Bq/L)	-	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01

¹All values are in mg/L, unless specified otherwise.

²SEQG = Saskatchewan Environmental Quality Guidelines for freshwater aquatic life (GS 2021).

³Guidelines for Canadian drinking water quality (HC 2017).

⁴Canadian Council of Ministers of the Environment (CCME) guidelines was used, as the SEQG is for dissolved aluminum. The AI guidelines are based on lab pH measurements (0.005 mg/L if pH < 6.5 or 0.1 mg/L if pH ≥ 6.5).

⁵Cadmium, copper, lead, and nickel guidelines were calculated using the site-specific hardness.

⁶No SEQG exists, therefore, the guideline is based on the Federal Environmental Quality Guidelines (GC 2018).

⁷Molybdenum guideline is based on the Saskatchewan Surface Water Quality Objectives (WSA 2018).

⁸A temperature of 10 °C and lab pH were used to derive guideline.

Appendix B, Table 2
 Summary fish flesh chemistry results for the EARMP community program, 2011 to 2021.

Chemical ¹	Regional Reference Range ^{2,3}							
	Lake Trout				Lake Whitefish			
	Lower Limit	Median	Upper Limit	n	Lower Limit	Median	Upper Limit	n
Metals								
Aluminum	0.5	0.5	0.68	45	0.5	0.5	0.6	47
Arsenic	0.018	0.11	0.3	45	0.028	0.08	0.185	47
Cadmium	0.002	0.002	0.0032	45	0.002	0.002	0.002	47
Cobalt	0.002	0.0042	0.0096	45	0.002	0.002	0.0057	47
Copper	0.114	0.2	0.31666667	45	0.224	0.306	0.59	47
Iron	1.48	2.26	4.56	45	1.7	2.89	5.52	47
Lead	0.002	0.002	0.0058	45	0.002	0.002	0.0044	47
Mercury	0.027	0.083	0.1374	45	0.076	0.195	0.592	47
Molybdenum	0.02	0.02	0.02	45	0.02	0.02	0.02	47
Nickel	0.01	0.01	0.038	45	0.01	0.01	0.025	47
Selenium	0.104	0.2536667	0.7824	45	0.108	0.16	0.268	47
Uranium	0.001	0.001	0.00433333	45	0.001	0.001	0.002	47
Vanadium	0.02	0.02	0.02	45	0.02	0.02	0.02	47
Zinc	3.2	4.17	5.46	45	2.86	4.12	5.68	47
Radionuclides								
Lead-210 (Bq/g)	0.00086	0.001	0.004	45	0.001	0.001	0.0012	47
Polonium-210 (Bq/g)	0.0002	0.00028	0.0007	45	0.0002	0.0002	0.00036	47
Radium-226 (Bq/g)	0.000054	0.000064	0.0005	45	0.000046	0.00006	0.000094	47
Thorium-230 (Bq/g)	0.0001	0.0001	0.002	45	0.000086	0.0001	0.00014	47

Appendix B, Table 2
 Summary fish flesh chemistry results for the EARMP community program, 2011 to 2021.

Chemical ¹	Black Lake (Black Lake)															
	Lake Trout															
	Baseline (n = 10)		2013 (n = 5)		2014 (n = 5)		2016 (n = 3)		2018 (n = 5)		2019 (n = 5)		2020 (n = 5)		2021 (n = 5)	
	Average	S.D.	Average	S.D.	Average	S.D.	Average	S.D.	Average	S.D.	Average	S.D.	Average	S.D.	Average	S.D.
Metals																
Aluminum	0.5	-	0.5	-	0.5	0.09	0.6	0.1	0.5	-	0.5	-	0.5	-	0.5	-
Arsenic	0.072	0.028	0.048	0.0084	0.064	0.025	0.080	0.017	0.066	0.015	0.056	0.022	0.094	0.030	0.076	0.032
Cadmium	0.002	-	0.002	-	0.002	-	0.002	-	0.002	-	0.002	-	0.002	-	0.002	-
Cobalt	0.002	0.0003	0.002	-	0.004	0.002	0.003	0.001	0.003	0.001	0.002	-	0.003	0.001	0.0024	0.00055
Copper	0.37	0.23	0.24	0.016	0.33	0.11	0.25	0.040	0.29	0.094	0.33	0.075	0.40	0.21	0.318	0.138
Iron	2.9	1.4	1.8	0.23	2.6	1.0	2.9	0.61	4.1	1.5	3.5	1.5	3.6	1.3	4.06	1.44
Lead	0.002	0.0008	0.002	-	0.003	0.002	0.004	0.001	0.002	0	0.002	-	0.003	0.001	0.002	-
Mercury	0.31	0.11	0.40	0.084	0.44	0.073	0.35	0.045	0.44	0.083	0.39	0.061	0.35	0.18	0.566	0.113
Molybdenum	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	0.006	0.01	-	0.01	-	0.01	0.004	0.012	0.0045
Selenium	0.15	0.026	0.14	0.024	0.15	0.019	0.15	0.0058	0.12	0.014	0.11	0.022	0.15	0.025	0.142	0.0164
Uranium	0.001	0.0003	0.001	-	0.001	0	0.001	-	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	-
Zinc	4.1	1.4	3.4	0.42	3.7	1.3	4.6	1.1	4.0	1.2	4.4	1.0	4.0	0.46	5.68	2.78
Radionuclides																
Lead-210 (Bq/g)	0.001	0.0004	0.001	-	0.001	0	0.001	-	0.001	-	0.001	-	0.001	-	0.001	-
Polonium-210 (Bq/g)	0.0002	0	0.0002	-	0.0002	-	0.0002	-	0.0002	-	0.0002	-	0.0002	0.00004	0.00022	0.000045
Radium-226 (Bq/g)	0.00006	0.00002	0.00007	0.00002	0.00005	-	0.00006	-	0.00006	0.000005	0.00006	0.000004	0.00006	0.00002	0.00005	-
Thorium-230 (Bq/g)	0.00011	0.00003	0.0001	0.00004	0.00009	-	0.0001	-	0.0001	-	0.0001	-	0.0001	0.00005	0.0001	-

Appendix B, Table 2
 Summary fish flesh chemistry results for the EARMP community program, 2011 to 2021.

Chemical ¹	Black Lake (Black Lake)															
	Lake Whitefish															
	Baseline (n = 10)		2013 (n = 5)		2014 (n = 5)		2016 (n = 3)		2018 (n = 5)		2019 (n = 5)		2020 (n = 5)		2021 (n = 5)	
	Average	S.D.	Average	S.D.	Average	S.D.	Average	S.D.	Average	S.D.	Average	S.D.	Average	S.D.	Average	S.D.
Metals																
Aluminum	0.5	-	0.5	-	0.5	-	0.5	-	0.5	0	0.5	-	0.5	-	0.5	-
Arsenic	0.18	0.14	0.024	0.0089	0.17	0.056	0.22	0.17	0.14	0.12	0.10	0.05	0.15	0.076	0.066	0.026
Cadmium	0.002	-	0.002	-	0.002	-	0.002	-	0.002	-	0.002	-	0.002	-	0.0022	0.00045
Cobalt	0.003	0.0009	0.003	0.001	0.004	0.003	0.003	0.002	0.003	0.001	0.002	0.001	0.004	0.002	0.0036	0.0011
Copper	0.19	0.051	0.11	0.088	0.26	0.19	0.14	0.036	0.29	0.19	0.17	0.045	0.16	0.027	0.222	0.0415
Iron	2.1	0.93	1.5	0.61	2.3	1.2	3.0	0.87	4.6	2.6	2.3	0.41	2.1	0.6	1.68	0.497
Lead	0.002	0.0004	0.002	-	0.002	0.0004	0.003	0.001	0.002	-	0.002	-	0.002	-	0.002	-
Mercury	0.12	0.059	0.058	0.026	0.10	0.024	0.090	0.030	0.11	0.02	0.12	0.02	0.090	0.028	0.1374	0.07574
Molybdenum	0.02	-	0.02	-	0.02	-	0.02	-	0.02	-	0.02	-	0.02	-	0.02	-
Nickel	0.01	0	0.01	-	0.01	0.005	0.02	0.02	0.01	-	0.01	-	0.01	-	0.012	0.0045
Selenium	0.27	0.065	0.22	0.048	0.30	0.047	0.40	0.067	0.21	0.06	0.16	0.033	0.18	0.065	0.188	0.0363
Uranium	0.001	0.0003	0.001	-	0.001	-	0.001	-	0.001	-	0.001	-	0.001	-	0.0014	0.00055
Vanadium	0.02	-	0.02	-	0.02	-	0.02	-	0.02	-	0.02	-	0.02	-	0.02	-
Zinc	4.6	1.1	3.9	0.52	3.8	0.68	4.6	0.35	4.2	0.9	3.3	0.55	4.4	1.1	4.72	1.12
Radionuclides																
Lead-210 (Bq/g)	0.002	0.001	0.001	0	0.001	-	0.001	-	0.001	-	0.001	-	0.001	-	0.001	-
Polonium-210 (Bq/g)	0.0004	0.0003	0.0004	0.0002	0.0002	0.00005	0.0005	0.0001	0.0003	0.0001	0.00022	-	0.0005	0.0003	0.00022	0.000045
Radium-226 (Bq/g)	0.0004	0.0007	0.0002	0.0001	0.00009	0.00006	0.00006	-	0.000054	0.000005	0.00006	0.000005	0.00006	0.000005	0.00006	-
Thorium-230 (Bq/g)	0.0005	0.0008	0.0001	0.00004	0.0001	-	0.0001	-	0.0001	-	0.0001	-	0.0001	-	0.0001	-

Appendix B, Table 2
 Summary fish flesh chemistry results for the EARMP community program, 2011 to 2021.

Chemical ¹	Camsell Portage (Ellis Bay)													
	Lake Trout													
	Baseline (n = 10)		2013 (n = 5)		2014 (n = 5)		2016 (n = 3)		2019 (n = 5)		2020 (n = 2)		2021 (n = 5)	
	Average	S.D.	Average	S.D.	Average	S.D.	Average	S.D.	Average	S.D.	Average	S.D.	Average	S.D.
Metals														
Aluminum	0.5	-	0.5	-	0.5	0.09	0.5	-	0.5	-	0.5	-	0.5	-
Arsenic	0.11	0.071	0.076	0.038	0.086	0.032	0.10	0.027	0.11	0.075	0.19	-	0.152	0.123
Cadmium	0.002	-	0.002	-	0.002	-	0.002	-	0.002	-	0.002	-	0.002	-
Cobalt	0.002	0.0004	0.002	0	0.003	0.0008	0.002	0.0006	0.002	-	0.002	-	0.002	-
Copper	0.34	0.15	0.28	0.063	0.31	0.083	0.39	0.12	0.26	0.021	0.38	-	0.24	0.082
Iron	2.8	1.5	2.1	0.45	3.4	1.2	3.1	0.92	2.5	0.37	4.7	-	2.3	0.41
Lead	0.002	-	0.002	-	0.002	0.0009	0.003	0.001	0.002	-	0.002	-	0.0026	0.00089
Mercury	0.15	0.070	0.23	0.12	0.34	0.031	0.14	0.032	0.13	0.067	0.20	-	0.216	0.0619
Molybdenum	0.02	-	0.02	-	0.02	-	0.02	-	0.02	-	0.02	-	0.02	-
Nickel	0.01	0.006	0.02	0.02	0.02	0.02	0.01	0.006	0.01	-	0.01	-	0.01	-
Selenium	0.16	0.024	0.16	0.015	0.18	0.023	0.19	0.021	0.14	0.008	0.19	-	0.16	0.020
Uranium	0.002	0.004	0.001	-	0.001	0	0.001	0	0.001	-	0.001	-	0.0014	0.00089
Vanadium	0.02	-	0.02	-	0.02	-	0.02	-	0.02	-	0.02	-	0.02	-
Zinc	5.0	3.1	3.3	0.36	4.6	1.4	5.0	1.3	3.9	2.6	5.7	-	4.5	0.72
Radionuclides														
Lead-210 (Bq/g)	0.001	-	0.001	-	0.001	-	0.001	-	0.001	-	0.001	-	0.001	-
Polonium-210 (Bq/g)	0.0003	0.0002	0.0002	-	0.0002	-	0.0002	-	0.0002	-	0.0002	-	0.0002	-
Radium-226 (Bq/g)	0.0001	0.00005	0.00007	0.00002	0.00005	-	0.00006	-	0.00007	0.000009	0.00006	-	0.00006	-
Thorium-230 (Bq/g)	0.0001	-	0.00010	0.00001	0.0001	-	0.0001	-	0.00012	-	0.0001	-	0.0001	-

Appendix B, Table 2
 Summary fish flesh chemistry results for the EARMP community program, 2011 to 2021.

Chemical ¹	Camsell Portage (Ellis Bay)									
	Lake Whitefish									
	Baseline (n = 7)		2013 (n = 5)		2014 (n = 5)		2016 (n = 3)		2021 (n = 5)	
	Average	S.D.	Average	S.D.	Average	S.D.	Average	S.D.	Average	S.D.
Metals										
Aluminum	0.5	-	0.5	-	0.7	0.3	0.5	-	0.5	-
Arsenic	0.30	0.081	0.29	0.14	0.18	0.14	0.13	0.093	0.102	0.0466
Cadmium	0.002	-	0.002	-	0.002	-	0.002	-	0.002	-
Cobalt	0.003	0.002	0.003	0.001	0.006	0.002	0.005	0.001	0.0076	0.0056
Copper	0.18	0.092	0.17	0.063	0.24	0.068	0.23	0.042	0.188	0.0356
Iron	2.2	1.1	2.6	0.75	3.2	0.95	2.4	0.53	1.48	0.691
Lead	0.002	0.0004	0.002	-	0.006	0.002	0.002	-	0.0024	0.00089
Mercury	0.050	0.019	0.08	0.058	0.055	0.0070	0.039	0.0038	0.0846	0.0314
Molybdenum	0.02	-	0.02	-	0.02	-	0.02	-	0.02	-
Nickel	0.01	0.004	0.01	-	0.04	0.03	0.01	-	0.01	-
Selenium	0.26	0.030	0.26	0.019	0.24	0.026	0.27	0.015	0.256	0.0559
Uranium	0.001	0.0004	0.003	0.001	0.002	0.0005	0.001	-	0.001	-
Vanadium	0.02	-	0.02	-	0.02	-	0.02	-	0.02	-
Zinc	3.2	0.55	3.7	1.1	4.5	1.2	4.1	0.9	4.48	0.110
Radionuclides										
Lead-210 (Bq/g)	0.001	0.0004	0.001	-	0.001	-	0.001	-	0.001	-
Polonium-210 (Bq/g)	0.0002	0.0001	0.0002	-	0.0005	0.0004	0.0004	0.0004	0.00046	0.00038
Radium-226 (Bq/g)	0.0001	0.00010	0.00010	0.00006	0.00006	-	0.00006	-	0.000066	0.000013
Thorium-230 (Bq/g)	0.0001	-	0.0001	-	0.0001	-	0.0001	-	0.00012	0.000045

Appendix B, Table 2
 Summary fish flesh chemistry results for the EARMP community program, 2011 to 2021.

Chemical ¹	Fond du Lac (Fond du Lac River)															
	Lake Trout															
	Baseline (n = 10)		2013 (n = 5)		2014 (n = 5)		2016 (n = 3)		2018 (n = 5)		2019 (n = 5)		2020 (n = 5)		2021 (n = 5)	
	Average	S.D.	Average	S.D.	Average	S.D.	Average	S.D.	Average	S.D.	Average	S.D.	Average	S.D.	Average	S.D.
Metals																
Aluminum	0.5	-	0.5	-	0.5	0.04	0.5	-	0.5	-	0.5	-	0.5	-	0.5	-
Arsenic	0.1	0.04	0.07	0.03	0.08	0.04	0.06	0.01	0.13	0.06	0.082	0.031	0.13	0.11	0.076	0.059
Cadmium	0.002	-	0.002	-	0.002	-	0.002	-	0.002	-	0.002	-	0.002	-	0.002	-
Cobalt	0.002	-	0.002	-	0.003	0.0005	0.0057	0.0055	0.0022	0.0004	0.002	-	0.003	0.001	0.0028	0.0011
Copper	0.28	0.081	0.30	0.087	0.27	0.10	0.29	0.064	0.38	0.05	0.25	0.094	0.55	0.29	0.242	0.0589
Iron	2.4	0.90	1.7	0.43	2.9	0.53	3.4	1.4	4.0	0.8	2.5	0.81	5.5	1.7	2.42	0.838
Lead	0.002	0.0007	0.003	0.003	0.004	0.002	0.002	0.0006	0.0026	0.0013	0.002	-	0.002	-	0.0026	0.0013
Mercury	0.22	0.073	0.08	0.030	0.59	0.18	0.18	0.084	0.16	0.031	0.19	0.033	0.25	0.050	0.358	0.172
Molybdenum	0.02	-	0.02	-	0.02	-	0.02	-	0.02	-	0.02	-	0.02	-	0.02	-
Nickel	0.01	-	0.01	0.005	0.02	0.004	0.01	0.006	0.01	-	0.01	-	0.02	0.01	0.01	-
Selenium	0.15	0.019	0.16	0.017	0.11	0.035	0.17	0.012	0.16	0.015	0.11	0.012	0.15	0.022	0.184	0.0152
Uranium	0.001	0.0003	0.001	-	0.001	0.0004	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	3.7	0.47	3.3	0.55	3.9	1.6	4.2	1.6	4.6	0.6	2.9	0.43	4.5	1.7	5.02	2.38
Radionuclides																
Lead-210 (Bq/g)	0.001	0.0004	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	-
Radium-226 (Bq/g)	0.00006	-	0.00006	0.000004	0.00006	0.00001	0.00006	-	0.00006	0.000007	0.00006	0.000007	0.00006	0.000008	0.00006	0.000005
Thorium-230 (Bq/g)	0.0001	-	0.0001	-	0.0001	-	0.0001	-	0.0001	-	0.0001	-	0.0001	-	0.0001	-

Appendix B, Table 2
 Summary fish flesh chemistry results for the EARMP community program, 2011 to 2021.

Chemical ¹	Fond du Lac (Fond du Lac River)															
	Lake Whitefish															
	Baseline (n = 10)		2013 (n = 5)		2014 (n = 5)		2016 (n = 3)		2018 (n = 5)		2019 (n = 5)		2020 (n = 5)		2021 (n = 5)	
	Average	S.D.	Average	S.D.	Average	S.D.	Average	S.D.	Average	S.D.	Average	S.D.	Average	S.D.	Average	S.D.
Metals																
Aluminum	0.6	0.3	0.5	-	0.5	0.04	0.5	0.06	0.5	-	0.5	-	0.5	-	0.5	-
Arsenic	0.24	0.14	0.06	0.034	0.11	0.11	0.19	0.14	0.26	0.021	0.09	0.1	0.25	0.045	0.03	0.007
Cadmium	0.002	0.001	0.002	0	0.002	-	0.002	-	0.002	0	0.002	0.001	0.002	0.0004	0.002	-
Cobalt	0.0040	0.0039	0.0054	0.0049	0.010	0.0067	0.010	0.0060	0.003	0.001	0.008	0.002	0.005	0.003	0.008	0.002
Copper	0.18	0.057	0.20	0.085	0.16	0.024	0.18	0.080	0.23	0.073	0.17	0.031	0.14	0.023	0.166	0.0207
Iron	2.2	1.5	2.4	1.4	2.0	0.64	2.1	0.44	3.2	0.61	2.6	0.79	2.5	1.0	2.26	0.573
Lead	0.002	0.0007	0.002	-	0.003	0.003	0.004	0.002	0.003	0.001	0.002	0.001	0.002	-	0.002	-
Mercury	0.090	0.068	0.028	0.0084	0.083	0.035	0.088	0.029	0.071	0.0046	0.10	0.039	0.10	0.015	0.118	0.0130
Molybdenum	0.02	-	0.02	-	0.02	-	0.02	-	0.02	-	0.02	-	0.02	-	0.02	-
Nickel	0.01	0.003	0.01	0	0.04	0.04	0.02	0.006	0.01	0	0.01	-	0.01	0.004	0.01	-
Selenium	0.22	0.048	0.20	0.052	0.16	0.052	0.25	0.090	0.26	0.039	0.18	0.067	0.25	0.044	0.216	0.0358
Uranium	0.001	0.0007	0.001	-	0.002	0.001	0.001	0.0006	0.001	0.0004	0.001	-	0.001	-	0.0014	0.00089
Vanadium	0.02	-	0.02	-	0.02	-	0.02	-	0.02	-	0.02	-	0.02	-	0.02	-
Zinc	3.9	0.94	4.1	0.74	4.0	0.55	4.3	0.64	3.4	0.3	3.9	0.78	3.2	0.66	5.4	1.8
Radionuclides																
Lead-210 (Bq/g)	0.004	-	0.001	-	0.001	-	0.001	-	0.001	-	0.001	-	0.001	-	0.001	-
Polonium-210 (Bq/g)	0.0004	0.0003	0.0002	-	0.0002	-	0.0002	-	0.0002	-	0.00022	-	0.0002	0.00004	0.0002	-
Radium-226 (Bq/g)	0.0004	0.0007	0.00007	0.00002	0.00007	0.00001	0.00006	-	0.00006	-	0.00006	0.000004	0.00006	0.000008	0.000086	0.000064
Thorium-230 (Bq/g)	0.002	-	0.0001	-	0.0001	0.00004	0.0001	-	0.0001	-	0.0001	-	0.0001	-	0.0001	-

Appendix B, Table 2
 Summary fish flesh chemistry results for the EARMP community program, 2011 to 2021.

Chemical ¹	Stony Rapids (Fond du Lac River)															
	Lake Trout															
	Baseline (n = 10)		2013 (n = 5)		2014 (n = 5)		2016 (n = 3)		2018 (n = 5)		2019 (n = 5)		2020 (n = 4)		2021 (n = 5)	
	Average	S.D.	Average	S.D.	Average	S.D.	Average	S.D.	Average	S.D.	Average	S.D.	Average	S.D.	Average	S.D.
Metals																
Aluminum	0.5	-	0.5	-	0.5	-	0.5	-	0.5	-	0.5	-	0.5	-	0.5	-
Arsenic	0.07	0.044	0.13	0.080	0.080	0.044	0.10	0.020	0.13	0.037	0.054	0.033	0.04	0.008	0.08	0.03
Cadmium	0.002	-	0.002	-	0.002	-	0.002	-	0.002	-	0.002	-	0.002	-	0.002	-
Cobalt	0.002	0	0.002	-	0.004	0.002	0.004	0.0006	0.002	-	0.002	-	0.002	-	0.0022	0.00045
Copper	0.29	0.19	0.35	0.068	0.46	0.27	0.59	0.15	0.36	0.053	0.31	0.11	0.33	0.047	0.29	0.057
Iron	2.8	2.3	3.8	1.3	5.3	3.9	4.8	1.2	4.3	0.7	3.4	1.2	4.1	1.0	3.84	1.95
Lead	0.002	-	0.002	-	0.004	0.004	0.002	-	0.002	0	0.003	0.001	0.002	0.0005	0.002	-
Mercury	0.33	0.16	0.18	0.072	0.20	0.052	0.17	0.031	0.10	0.0057	0.20	0.050	0.24	0.099	0.292	0.0672
Molybdenum	0.02	-	0.02	-	0.02	-	0.02	-	0.02	-	0.02	-	0.02	-	0.02	-
Nickel	0.01	0	0.01	0	0.02	0.02	0.01	0.006	0.01	-	0.01	-	0.03	0.03	0.01	-
Selenium	0.14	0.037	0.17	0.018	0.15	0.011	0.17	0.012	0.16	0.018	0.13	0.011	0.18	0.026	0.146	0.0167
Uranium	0.001	0.0003	0.001	-	0.001	-	0.001	-	0.001	-	0.001	0.0009	0.001	-	0.001	-
Vanadium	0.02	-	0.02	-	0.02	-	0.02	-	0.02	-	0.02	-	0.02	-	0.02	-
Zinc	3.7	0.86	3.6	0.46	4.0	0.88	3.5	0.30	4.6	0.34	3.7	1.3	5.2	1.3	5.42	2.16
Radionuclides																
Lead-210 (Bq/g)	0.001	0	0.001	0	0.001	-	0.001	-	0.001	0.0004	0.001	-	0.001	-	0.001	-
Polonium-210 (Bq/g)	0.0002	0.00007	0.0002	0.00004	0.0002	-	0.0002	-	0.0002	0	0.0002	-	0.0002	-	0.0002	-
Radium-226 (Bq/g)	0.00006	-	0.00007	0.00002	0.00007	-	0.00006	-	0.00006	0.000004	0.00006	0.000005	0.00005	0.000005	0.00005	-
Thorium-230 (Bq/g)	0.0001	-	0.0001	-	0.0001	-	0.0001	-	0.0001	-	0.0001	-	0.0001	-	0.0001	-

Appendix B, Table 2
 Summary fish flesh chemistry results for the EARMP community program, 2011 to 2021.

Chemical ¹	Stony Rapids (Fond du Lac River)															
	Lake Whitefish															
	Baseline (n = 10)		2013 (n = 5)		2014 (n = 5)		2016 (n = 3)		2018 (n = 5)		2019 (n = 5)		2020 (n = 5)		2021 (n = 5)	
	Average	S.D.	Average	S.D.	Average	S.D.	Average	S.D.	Average	S.D.	Average	S.D.	Average	S.D.	Average	S.D.
Metals																
Aluminum	0.5	-	0.50	-	0.5	-	0.5	0.06	0.5	-	0.5	-	0.5	-	0.5	-
Arsenic	0.04	0.02	0.03	0.007	0.03	0.03	0.04	0.02	0.12	0.035	0.02	0.008	0.07	0.09	0.052	0.019
Cadmium	0.002	-	0.002	-	0.002	-	0.002	-	0.003	0.001	0.003	0.001	0.002	-	0.002	-
Cobalt	0.0060	0.0031	0.0046	0.00089	0.005	0.0021	0.014	0.0082	0.007	0.005	0.008	0.001	0.004	0.003	0.007	0.004
Copper	0.20	0.083	0.22	0.064	0.21	0.025	0.16	0.046	0.25	0.050	0.15	0.024	0.21	0.036	0.254	0.0498
Iron	2.1	0.98	2.5	1.3	1.9	0.22	1.8	0.10	3.4	0.51	2.0	0.34	2.3	0.43	2.84	0.677
Lead	0.002	-	0.002	-	0.002	0.001	0.003	0.001	0.002	-	0.002	-	0.002	-	0.002	-
Mercury	0.13	0.10	0.06	0.021	0.093	0.027	0.041	0.0062	0.057	0.030	0.068	0.017	0.088	0.040	0.0908	0.0291
Molybdenum	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	0.004	0.02	0.02	0.01	-	0.01	-	0.01	-	0.01	-
Selenium	0.15	0.049	0.13	0.013	0.12	0.029	0.13	0.036	0.17	0.056	0.10	0.015	0.17	0.083	0.132	0.0409
Uranium	0.001	0	0.001	-	0.002	0.003	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	4.9	1.7	4.3	0.61	3.7	0.53	4.6	0.26	4.6	0.74	3.5	1.5	4.3	0.82	5.24	0.986
Radionuclides																
Lead-210 (Bq/g)	0.001	-	0.001	-	0.001	-	0.001	-	0.001	-	0.001	-	0.001	0.0004	0.001	-
Polonium-210 (Bq/g)	0.0003	-	0.0002	0	0.0002	0	0.0002	-	0.0002	0.00009	0.00024	-	0.0002	-	0.0002	-
Radium-226 (Bq/g)	0.0002	0.0003	0.00007	0.00002	0.00006	-	0.00006	-	0.00006	-	0.00006	0.000004	0.00007	0.00001	0.00006	-
Thorium-230 (Bq/g)	0.0003	0.0006	0.0001	-	0.0001	-	0.0001	-	0.0001	-	0.0001	-	0.0001	0.00005	0.0001	-

Appendix B, Table 2
 Summary fish flesh chemistry results for the EARMP community program, 2011 to 2021.

Chemical ¹	Uranium City (Prospector Bay)															
	Lake Trout															
	Baseline (n = 5)		2013 (n = 5)		2014 (n = 5)		2016 (n = 3)		2018 (n = 5)		2019 (n = 5)		2020 (n = 5)		2021 (n = 5)	
	Average	S.D.	Average	S.D.	Average	S.D.	Average	S.D.	Average	S.D.	Average	S.D.	Average	S.D.	Average	S.D.
Metals																
Aluminum	0.5	-	0.5	-	0.5	-	0.6	0.1	0.5	-	0.5	-	0.5	-	0.5	-
Arsenic	0.08	0.03	0.06	0.02	0.084	0.07	0.12	0.061	0.12	0.11	0.094	0.044	0.074	0.039	0.122	0.102
Cadmium	0.002	-	0.002	-	0.002	-	0.002	-	0.002	-	0.002	-	0.002	-	0.002	-
Cobalt	0.002	-	0.002	-	0.002	0	0.003	0.001	0.003	0.001	0.002	-	0.002	-	0.002	-
Copper	0.24	0.029	0.22	0.042	0.29	0.027	0.36	0.24	0.30	0.11	0.32	0.078	0.28	0.069	0.236	0.0844
Iron	2.8	1.1	3.0	2.6	2.7	0.62	3.4	2.6	2.7	1.3	2.3	0.36	1.8	0.46	1.92	1.19
Lead	0.002	-	0.003	0.002	0.002	0.0005	0.002	0	0.002	-	0.002	-	0.003	0.0009	0.002	-
Mercury	0.20	0.046	0.14	0.056	0.17	0.069	0.15	0.031	0.17	0.080	0.14	0.037	0.15	0.042	0.164	0.0241
Molybdenum	0.02	-	0.02	-	0.02	-	0.02	-	0.02	-	0.02	-	0.02	-	0.02	-
Nickel	0.01	-	0.01	0.004	0.01	0.004	0.01	-	0.01	-	0.01	-	0.01	-	0.01	-
Selenium	0.17	0.005	0.15	0.019	0.15	0.0055	0.15	0.036	0.18	0.0089	0.16	0.012	0.18	0.019	0.268	0.209
Uranium	0.001	-	0.001	-	0.002	0.002	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	4.3	0.65	3.0	0.48	4.8	2.0	4.2	1.7	4.1	1.6	3.5	0.53	3.9	0.91	4.66	2.04
Radionuclides																
Lead-210 (Bq/g)	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	0.0002	-	0.0002	-	0.0002	-	0.0002	-	0.0002	-	0.0002	-
Radium-226 (Bq/g)	0.00006	0.000004	0.00009	0.000061	0.00006	0.00001	0.00006	-	0.00006	0.00001	0.00006	0.000007	0.00007	0.00001	0.00006	0.00001
Thorium-230 (Bq/g)	0.0001	-	0.0001	0.00004	0.0001	-	0.0001	-	0.00012	0.00004	0.0001	-	0.0001	0.00005	0.0001	-

Appendix B, Table 2
 Summary fish flesh chemistry results for the EARMP community program, 2011 to 2021.

Chemical ¹	Uranium City (Prospector Bay)															
	Lake Whitefish															
	Baseline (n = 10)		2013 (n = 5)		2014 (n = 5)		2016 (n = 3)		2018 (n = 5)		2019 (n = 5)		2020 (n = 3)		2021 (n = 5)	
	Average	S.D.	Average	S.D.	Average	S.D.	Average	S.D.	Average	S.D.	Average	S.D.	Average	S.D.	Average	S.D.
Metals																
Aluminum	0.5	-	0.5	-	0.5	0.04	0.5	0	0.5	-	0.5	-	0.5	-	0.52	0.045
Arsenic	0.07	0.029	0.19	0.026	0.10	0.075	0.070	0.044	0.076	0.049	0.080	0.035	0.080	0.061	0.158	0.0593
Cadmium	0.002	-	0.002	0	0.002	0	0.002	-	0.002	-	0.002	-	0.002	-	0.0022	0.00045
Cobalt	0.006	0.005	0.009	0.006	0.008	0.005	0.004	0.001	0.005	0.001	0.003	0.001	0.01	0.003	0.0024	0.00055
Copper	0.15	0.026	0.26	0.11	0.29	0.11	0.20	0.032	0.26	0.055	0.16	0.025	0.32	0.09	0.224	0.0783
Iron	1.6	0.38	2.3	0.55	3.0	1.3	1.8	0.23	2.2	0.5	1.8	0.87	3.2	1.3	2.34	1.17
Lead	0.002	-	0.002	0.0006	0.005	0.004	0.003	0.002	0.002	-	0.002	-	0.002	-	0.002	-
Mercury	0.090	0.036	0.03	0.017	0.039	0.012	0.058	0.019	0.036	0.0080	0.066	0.023	0.027	0.0010	0.0454	0.0137
Molybdenum	0.02	-	0.02	-	0.02	-	0.02	-	0.02	-	0.02	-	0.02	-	0.02	-
Nickel	0.01	-	0.01	0	0.02	0.02	0.01	-	0.01	-	0.01	-	0.01	-	0.01	-
Selenium	0.26	0.040	0.25	0.012	0.24	0.031	0.27	0.036	0.59	0.73	0.29	0.046	0.7	0.62	0.7824	0.6931
Uranium	0.001	-	0.001	-	0.002	0.0009	0.001	-	0.001	0.0004	0.001	-	0.004	0.005	0.0014	0.00055
Vanadium	0.02	-	0.02	-	0.02	-	0.02	-	0.02	-	0.02	-	0.02	-	0.02	-
Zinc	4.8	1.6	4.3	1.7	4.6	0.74	4.6	1.5	5.1	0.7	3.6	0.29	4.4	0.25	5.46	1.37
Radionuclides																
Lead-210 (Bq/g)	0.001	-	0.001	-	0.001	-	0.001	-	0.001	-	0.001	-	0.001	-	0.001	-
Polonium-210 (Bq/g)	0.0003	0.0002	0.0002	0.00006	0.0007	0.0003	0.0002	0.0001	0.0005	0.0003	0.00044	-	0.0007	0.0005	0.00062	0.00030
Radium-226 (Bq/g)	0.00006	-	0.00006	0	0.00008	0.00002	0.00006	-	0.00006	-	0.00006	-	0.00006	0.000006	0.00006	8.E-21
Thorium-230 (Bq/g)	0.0001	-	0.0001	-	0.0001	-	0.0001	-	0.0001	0	0.0001	-	0.0001	-	0.0001	-

Appendix B, Table 2
 Summary fish flesh chemistry results for the EARMP community program, 2011 to 2021.

Chemical ¹	Wollaston Lake/Hatchet Lake (Wollaston Lake)															
	Lake Trout															
	Baseline (n = 10)		2013 (n = 5)		2014 (n = 5)		2016 (n = 3)		2018 (n = 5)		2019 (n = 5)		2020 (n = 5)		2021 (n = 5)	
	Average	S.D.	Average	S.D.	Average	S.D.	Average	S.D.	Average	S.D.	Average	S.D.	Average	S.D.	Average	S.D.
Metals																
Aluminum	0.5	-	0.50	-	0.5	-	0.5	-	0.5	-	0.5	-	0.5	-	0.5	-
Arsenic	0.04	0.02	0.03	0.02	0.03	0.01	0.05	0.04	0.08	0.03	0.074	0.061	0.032	0.016	0.05	0.02
Cadmium	0.002	-	0.002	-	0.002	-	0.002	-	0.002	-	0.002	-	0.002	-	0.002	-
Cobalt	0.002	-	0.002	-	0.003	0.002	0.003	0.001	0.002	-	0.002	0.001	0.002	0.0004	0.002	-
Copper	0.45	0.15	0.34	0.030	0.31	0.077	0.28	0.072	0.42	0.16	0.30	0.18	0.33	0.088	0.24	0.032
Iron	3.0	1.3	2.4	0.36	2.0	0.43	2.7	1.1	3.5	1.1	2.3	1.4	2.4	1.0	1.86	0.416
Lead	0.002	-	0.003	0.001	0.002	0.0009	0.002	-	0.002	0.0009	0.002	-	0.002	-	0.002	-
Mercury	0.16	0.035	0.12	0.038	0.24	0.083	0.20	0.035	0.15	0.041	0.15	0.043	0.16	0.047	0.16	0.091
Molybdenum	0.02	-	0.02	-	0.02	-	0.02	-	0.02	-	0.02	-	0.02	-	0.02	-
Nickel	0.01	0.003	0.01	-	0.02	0.02	0.01	-	0.01	-	0.01	-	0.01	-	0.01	-
Selenium	0.21	0.036	0.20	0.011	0.19	0.019	0.23	0.017	0.20	0.056	0.24	0.11	0.23	0.014	0.214	0.0467
Uranium	0.001	-	0.001	0.0004	0.001	0	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	4.4	1.3	4.4	0.83	3.2	0.83	3.0	0.85	4.9	1.0	3.9	1.2	4.4	1.6	4.08	0.476
Radionuclides																
Lead-210 (Bq/g)	0.001	0	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	-	0.0004	0.0004	0.0002	-	0.0002	-
Radium-226 (Bq/g)	0.00009	0.00008	0.00009	0.00006	0.00005	-	0.00006	-	0.00006	0.000004	0.00006	0.000004	0.00006	0.000009	0.00006	-
Thorium-230 (Bq/g)	0.0001	-	0.0001	-	0.0001	-	0.0001	-	0.0001	-	0.0001	-	0.0001	0.00004	0.0001	-

Appendix B, Table 2
Summary fish flesh chemistry results for the EARMP community program, 2011 to 2021.

Chemical ¹	Wollaston Lake/Hatchet Lake (Wollaston Lake)															
	Lake Whitefish															
	Baseline (n = 10)		2013 (n = 5)		2014 (n = 5)		2016 (n = 3)		2018 (n = 5)		2019 (n = 5)		2020 (n = 5)		2021 (n = 5)	
	Average	S.D.	Average	S.D.	Average	S.D.	Average	S.D.	Average	S.D.	Average	S.D.	Average	S.D.	Average	S.D.
Metals																
Aluminum	0.5	-	0.5	-	0.5	-	0.5	0	0.5	-	0.5	-	0.5	-	0.5	-
Arsenic	0.16	0.042	0.15	0.035	0.11	0.035	0.11	0.076	0.11	0.034	0.080	0.037	0.14	0.099	0.206	0.0397
Cadmium	0.002	-	0.002	-	0.002	-	0.002	-	0.003	0.002	0.002	-	0.002	-	0.002	-
Cobalt	0.002	0.0010	0.002	0	0.003	0.001	0.003	0.0006	0.003	0.001	0.002	0.001	0.003	0.001	0.0032	0.0011
Copper	0.16	0.045	0.14	0.015	0.15	0.016	0.26	0.16	0.24	0.048	0.23	0.064	0.22	0.11	0.176	0.0358
Iron	1.7	0.79	2.1	0.59	1.9	0.57	3.8	1.9	4.2	1.5	2.4	0.58	2.2	0.72	2.22	0.602
Lead	0.002	0	0.002	0	0.003	0.001	0.002	-	0.005	0.002	0.002	-	0.002	-	0.002	-
Mercury	0.050	0.019	0.040	0.023	0.088	0.015	0.081	0.034	0.083	0.014	0.090	0.045	0.092	0.072	0.0752	0.0147
Molybdenum	0.02	-	0.02	-	0.02	-	0.02	-	0.02	-	0.02	-	0.02	-	0.02	-
Nickel	0.01	-	0.01	0.004	0.01	0.004	0.01	0	0.01	0.004	0.01	-	0.01	-	0.01	-
Selenium	0.45	0.10	0.36	0.046	0.38	0.039	0.55	0.40	0.42	0.032	0.49	0.23	0.40	0.12	0.466	0.0907
Uranium	0.001	-	0.001	-	0.001	0	0.001	-	0.002	0.0009	0.001	-	0.001	-	0.001	-
Vanadium	0.02	-	0.02	-	0.02	-	0.02	-	0.02	-	0.02	-	0.02	-	0.02	-
Zinc	4.1	0.67	4.0	0.88	3.6	0.89	4.9	2.4	5.0	1.7	3.4	0.32	4.3	0.69	4.04	0.792
Radionuclides																
Lead-210 (Bq/g)	0.002	-	0.0009	0.0003	0.001	-	0.001	-	0.001	-	0.001	-	0.001	-	0.001	-
Polonium-210 (Bq/g)	0.0005	0.0004	0.0004	0.0004	0.0003	0.0001	0.0004	0.0003	0.0007	0.0002	0.0006	0.0005	0.0002	0.0001	0.00032	0.0001
Radium-226 (Bq/g)	0.0005	0.0008	0.0003	0.0004	0.00007	0.00002	0.00006	-	0.00006	0.000005	0.00006	0.000007	0.00006	0.00001	0.00005	0.00001
Thorium-230 (Bq/g)	0.0007	-	0.0001	-	0.0001	-	0.0001	-	0.0001	-	0.0001	-	0.0001	4E-05	0.0001	-

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 2014. 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).

⁴Insufficient sample material available for one of the samples to be analysed for Thorium-230, thus n = 3 for this parameter.

S.D. = standard deviation; standard deviations of 0 signify "no variance between samples", not "a very small variance"; while "-" indicates insufficient data to calculate S.D.

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

Appendix B, Table 3
 Summary snowshoe hare flesh chemistry results for the EARMP community program, 2011 to 2021.

Chemical ¹	Black Lake			Camsell Portage				Fond du Lac			
	2017 (n = 4)		2021 (n = 1)	2011 Baseline (n = 5)		2014 (n = 3)		2017 (n = 3)		2021 ² (n = 3)	
	Average	S.D.		Average	S.D.	Average	S.D.	Average	S.D.	Average	S.D.
Metals											
Aluminum	0.83	0.43	<0.5	0.5	0.04	0.5	-	0.5	-	0.5	-
Arsenic	0.01	0.005	<0.01	0.01	-	0.01	-	0.01	-	0.01	0.00
Cadmium	0.012	0.0172	0.015	0.002	-	0.004	0.002	0.007	0.0032	0.002	0.000
Cobalt	0.011	0.0025	0.005	0.004	0.0008	0.013	0.017	0.018	0.0036	0.01	0.003
Copper	2.5	1.03	2.1	1.8	0.38	1.9	0.15	2.0	0.60	2.3	0.50
Iron	36	6.6	30	26	6.6	21	3.2	36	1.5	29	3.5
Lead	0.004	0.0010	2.4	0.003	0.0005	0.002	0.001	0.003	0.0010	0.002	-
Molybdenum	0.02	-	<0.02	0.02	-	0.02	-	0.02	-	0.02	-
Nickel	0.05	0.025	<0.01	0.01	0	0.03	0.03	0.07	0.015	0.01	-
Selenium	0.32	0.09	0.17	0.06	0.012	0.08	0.06	0.22	0.07	0.07	0.04
Uranium	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	-
Zinc	18	3.8	15	13	3.2	13	3	20	3.6	16	3.0
Radionuclides											
Lead-210 (Bq/g)	0.001	-	<0.001	0.001	-	0.001	-	0.0017	0.0012	0.001	-
Polonium-210 (Bq/g)	0.0009	0.00017	0.0009	0.002	0.0007	0.002	0	0.0009	0.00031	0.0009	0.0004
Radium-226 (Bq/g)	0.000225	0	<0.00005	0.00017	0.000097	0.00009	0.00002	0.0002	-	0.00006	-
Thorium-230 (Bq/g)	0.0005	-	-	0.0001	-	0.0001	-	0.0005	-	0.0001	-

Appendix B, Table 3
 Summary snowshoe hare flesh chemistry results for the EARMP community program, 2011 to 2021.

Chemical ¹	Stony Rapids				Uranium City						Wollaston/Hatchet Lake			
	2017 (n = 3)		2021 ² (n = 3)		2011 Baseline (n = 5)		2014 (n = 2)		2021 ² (n = 3)		2017 (n = 3)		2021 ² (n = 3)	
	Average	S.D.	Average	S.D.	Average	S.D.	Average	S.D.	Average	S.D.	Average	S.D.	Average	S.D.
Metals														
Aluminum	0.87	0.64	0.5	-	0.5	0.04	0.5	0	0.5	-	0.53	0.06	0.5	-
Arsenic	0.01	0.006	0.01	0	0.01	-	0.02	0.007	0.01	0	0.01	-	0.01	0
Cadmium	0.054	0.0745	0.005	0.0006	0.004	0.0033	0.004	0.002	0.007	0.008	0.012	0.0025	0.008	0.006
Cobalt	0.013	0.0085	0.004	0.001	0.006	0.0027	0.005	0.0007	0.005	0.001	0.008	0.0021	0.003	0.001
Copper	1.6	0.40	2.0	0.40	1.8	0.37	2.3	0.21	1.9	0.95	2.1	0.35	2.6	0.40
Iron	39	16.3	28	5.9	26	3.6	26	7.1	26	7.0	30	6.0	28	2.9
Lead	0.005	0.0030	0.002	-	0.003	0.0017	0.002	0	0.002	0.000	0.006	0.0036	0.013	0.019
Molybdenum	0.02	0	0.02	-	0.02	-	0.02	-	0.02	-	0.02	-	0.02	-
Nickel	0.03	0.015	0.01	-	0.02	0.009	0.04	0.02	0.01	0.00	0.03	0.015	0.01	-
Selenium	0.19	0.04	0.1	0.05	0.06	0.044	0.11	0.057	0.16	0.045	0.14	0.01	0.06	0.02
Uranium	0.001	0	0.001	-	0.001	-	0.001	-	0.001	-	0.001	-	0.001	0.000
Vanadium	0.02	-	0.02	-	0.02	-	0.02	-	0.02	-	0.02	-	0.02	-
Zinc	24	7.0	17	5	15	4.7	13	4.2	16	3.5	16	0.6	16	2.6
Radionuclides														
Lead-210 (Bq/g)	0.001	0	0.001	-	0.001	-	0.001	-	0.001	-	0.0013	0.0006	0.001	-
Polonium-210 (Bq/g)	0.0016	0.00087	0.0018	0.00056	0.002	0.0004	0.002	0.0005	0.0015	0.0015	0.0011	0.00046	0.0025	0.00069
Radium-226 (Bq/g)	0.0002	-	0.00005	-	0.00011	0.000050	0.00009	0.00002	0.00006	-	0.0002	-	0.00006	-
Thorium-230 (Bq/g)	0.0005	-	-	-	0.0001	-	0.00015	-	0.0001	-	0.0005	-	0.0001	-

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

²Some 2021 samples were collected in the early months of 2022.

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

<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, Table 4
 Summary spruce grouse flesh chemistry results for the EARMP community program, 2017 to 2021.

Chemical ¹	Black Lake				Camsell Portage		Fond du Lac				Stony Rapids				Uranium City				Wollaston/Hatchet Lake			
	2017 (n = 3)		2021 ² (n = 3)		2021 ² (n = 3)		2017 (n = 3)		2021 ² (n = 3)		2017 (n = 4)		2021 ² (n = 3)		2017 (n = 3)		2021 ² (n = 3)		2017 (n = 3)		2021 ² (n = 3)	
	Average	S.D.	Average	S.D.	Average	S.D.	Average	S.D.	Average	S.D.	Average	S.D.	Average	S.D.	Average	S.D.	Average	S.D.	Average	S.D.	Average	S.D.
Metals																						
Aluminum	2.0	1.6	0.5	0.06	1.5	1.5	0.8	0.4	0.5	-	2.7	1.6	1.2	1.0	1.0	0.6	0.5	-	0.6	0.1	0.5	-
Arsenic	0.01	-	0.01	0.006	0.01	0.00	0.01	-	0.01	-	0.01	-	0.01	0.00	0.01	-	0.01	0.00	0.01	-	0.01	-
Cadmium	0.007	0.002	0.002	0.000	0.013	0.019	0.016	0.011	0.009	0.004	0.011	0.010	0.006	0.004	0.007	0.006	0.0027	0.0012	0.003	0.002	0.003	0
Cobalt	0.020	0.016	0.002	0.0006	0.002	0.000	0.006	0.003	0.002	-	0.004	0.001	0.002	-	0.003	0.001	0.002	-	0.004	0.002	0.002	-
Copper	3.1	0.6	3.0	0.38	2.5	0.3	3.2	0.8	2.6	0.70	1.9	0.6	2.7	0.55	2.0	0.9	2.7	0.59	2.1	0.7	2.8	0.32
Iron	66	29	34	0.58	33	5.9	55	9	40	16	41	5	42	14	48	13	33	4.0	33	8	38	1
Lead	1.8	2.1	0.014	0.016	0.002	0.000	0.12	0.19	0.008	0.006	1	2	0.01	0.012	0.9	1.3	0.066	0.060	0.15	0.18	0.002	-
Molybdenum	0.04	0.02	0.02	0.00	0.06	0.04	0.04	0.03	0.03	0.01	0.04	0.03	0.03	0.02	0.03	0.02	0.02	0.006	0.02	-	0.02	0.00
Nickel	0.04	0.03	0.01	-	0.01	-	0.02	0.02	0.01	-	0.03	0.01	0.01	-	0.01	0.01	0.01	-	0.02	0.01	0.01	-
Selenium	0.26	0.02	0.33	0.075	0.22	0.017	0.30	0.06	0.25	0.030	0.18	0.02	0.20	0.067	0.19	0.11	0.36	0.091	0.26	0.04	0.26	0.059
Uranium	0.001	-	0.001	0.0006	0.001	-	0.001	-	0.001	-	0.001	-	0.001	-	0.002	0.001	0.001	0.000	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	-
Zinc	13	5	7.7	1.1	6.8	0.45	18	5	11	3.6	18	8	7.9	0.61	13	6	6.8	1.5	7	0	7.1	0.60
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	-
Polonium-210 (Bq/g)	0.0003	0.0001	0.0002	-	0.0006	0.0004	0.0008	0.0002	0.0005	0.0003	0.0003	0.0001	0.0004	0.0002	0.0004	0.0002	0.0002	0.0000	0.0003	0.0002	0.0006	0.0001
Radium-226 (Bq/g)	0.0002	0	0.00006	-	0.00005	-	0.0002	0	0.00005	-	0.0002	-	0.00005	-	0.0002	-	0.00005	-	0.0002	-	0.00005	-
Thorium-230 (Bq/g)	0.0005	-	-	-	-	-	0.0005	-	-	-	0.0005	-	-	-	0.0005	-	-	-	0.0005	-	-	-

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

²The 2021 samples from Wollaston/Hatchet Lake were collected in the early months of 2022.

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

<RDL = less than the laboratory reported detection limit.

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

APPENDIX C

DETAILED DATA

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Detailed fish flesh chemistry data from the EARMP community program (Black Lake), 2011 to 2021.

Chemical ¹	Black Lake (Black Lake)																			
	Lake Trout																			
	2011					2012					2013					2014				
	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	
Metals																				
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
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
Arsenic	0.05	0.06	0.07	0.05	0.1	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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
Strontium	0.1	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
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
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
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
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
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
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
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	76.50	74.42	74.85	72.40	73.77	75.34	76.29	75.02	73.38
Length (cm)	44.9	51.2	48.7	48.3	50.5	51.3	52.7	51.2	62.5	65.2	54	56	53.2	54.8	49.6	52.6	53.2	53.5	50.5	54
Weight (g)	1730	1710	1480	1450	1740	1360	1740	1180	2060	2410	1940	2200	1720	1880	1760	1920	2240	1965	1900	2190
Sex	F	M	M	F	M	F	M	M	F	M	F	F	M	M	M	M	F	F	M	M
Maturity	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
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
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
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
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

Appendix C, Table 2

Detailed fish flesh chemistry data from the EARMP community program (Black Lake), 2011 to 2021.

Chemical ¹	Black Lake (Black Lake)																						
	Lake Trout																						
	2016			2018					2019					2020					2021				
	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	LT01	LT02	LT03	LT04	LT05	LT01	LT02	LT03	LT04	LT05	LT06	LT07	LT08	LT09	LT10	LT01	LT02	LT03	LT04	LT05	
Metals																							
Aluminum	0.7	<0.5	0.6	<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	0.1	0.07	0.07	0.07	0.06	0.06	0.09	0.05	0.06	0.02	0.06	0.08	0.06	0.12	0.07	0.13	0.09	0.06	0.08	0.04	0.09	0.12	0.05
Barium	0.04	0.16	0.18	0.04	0.09	<0.01	0.05	0.04	0.01	0.03	0.01	0.02	0.02	0.02	<0.01	0.02	0.02	0.01	0.01	<0.01	0.10	0.02	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
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	0.3	<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
Cobalt	0.003	0.004	<0.002	0.003	0.002	<0.002	0.003	0.003	<0.002	0.002	0.002	0.003	<0.002	0.004	0.002	0.002	0.003	0.005	<0.002	<0.002	0.003	<0.002	0.003
Copper	0.29	0.24	0.21	0.35	0.39	0.24	0.3	0.15	0.39	0.28	0.25	0.43	0.32	0.4	0.21	0.31	0.76	0.34	0.43	0.33	0.46	0.12	0.25
Iron	3.6	2.8	2.4	3.1	6.1	2.3	4.4	4.4	2.4	3.9	2.3	5.9	2.9	5.7	2.3	2.8	3.8	3.4	3.2	5.6	5.2	2.1	4.2
Lead	0.003	0.004	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	0.003	0.005	<0.002	<0.002	<0.002	<0.002	<0.002
Manganese	0.12	0.14	0.08	0.09	0.1	0.09	0.1	0.09	0.09	0.09	0.1	0.12	0.09	0.09	0.08	0.07	0.08	0.08	0.06	0.07	0.11	0.08	0.11
Mercury	0.4	0.31	0.35	0.48	0.37	0.56	0.36	0.43	0.3	0.45	0.44	0.37	0.37	0.22	0.59	0.44	0.15	0.37	0.53	0.51	0.47	0.76	0.56
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	0.02	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	0.02	<0.01	<0.01	<0.01	0.02	<0.01	<0.01
Selenium	0.15	0.16	0.15	0.1	0.12	0.12	0.12	0.14	0.09	0.09	0.1	0.14	0.12	0.19	0.15	0.13	0.14	0.13	0.12	0.13	0.16	0.15	0.15
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	0.19	0.68	0.1	0.44	0.11	0.07	0.2	0.07	0.19	0.26	0.26	0.28	0.32	0.37	0.23	0.27	0.34	0.18	0.23	0.13	0.36	0.06	0.15
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	0.01	0.03	0.01	<0.01	<0.01	<0.01	0.01	<0.01	0.01	0.02	0.01	0.01	<0.01	0.06	0.06	0.04	0.05	0.04	<0.01	<0.01	<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	<0.001	<0.001	<0.001	<0.001	0.002	0.002	0.004
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	5.8	4.2	3.7	4.5	5.4	2.6	4.5	2.9	4	4.6	3.5	6.1	3.7	4.3	3.6	4	4.6	3.5	4.1	4.4	9.9	3.0	7.0
Physical Properties																							
Moisture (%)	76.61	69.74	66.98	80.57	78.50	79.94	79.39	76.88	77.98	81.02	79.47	79.31	76.58	74.34	79.34	77.52	74.80	80.15	76.99	81.82	78.38	82.50	79.22
Length (cm)	48	52.4	50.5	53.3	51.2	55	56.5	59.5	49.1	51.4	50.9	54.4	52.7	46.0	54.2	49.7	41.7	48.5	54.6	55.5	57.4	54.1	57.5
Weight (g)	1580	1920	1580	1610	1680	1640	1590	2250	1600	1500	1900	2040	1880	1210	1980	1650	1010	1360	1920	1860	2310	1850	2290
Sex	M	M	M	F	M	F	F	M	M	M	F	M	M	M	F	F	M	F	F	M	F	M	F
Maturity	A	A	A	A	A	A	A	U	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
Age (years)	15	14	16	12	18	19	23	22	10	17	15	19	19	6	25	11	6	9	22	21	21	19	19
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	0.0003	<0.0002	<0.0002	<0.0002	0.0003	<0.0002	<0.0002
Radium-226 (Bq/g)	<0.00006	<0.00006	<0.00007	<0.00005	<0.00006	<0.00006	<0.00005	<0.00006	<0.00006	<0.00006	<0.00006	<0.00007	<0.00006	<0.00006	<0.00007	<0.00007	0.00008	<0.00004	<0.00005	<0.00006	<0.00006	<0.00005	<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	<0.0001	<0.0002	<0.00009	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001

Appendix C, Table 2

Detailed fish flesh chemistry data from the EARMP community program (Black Lake), 2011 to 2021.

Chemical ¹	Black Lake (Black Lake)																			
	Lake Whitefish																			
	2011					2012					2013					2014				
	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	
Metals																				
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
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
Arsenic	0.25	0.27	0.4	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
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
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
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
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
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
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
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
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
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
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
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
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
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	0.02	0.02
Selenium	0.3	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
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
Strontium	0.79	0.24	1.2	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
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
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
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
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
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
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
Physical Properties																				
Moisture (%)	75.22	76.01	76.93	75.27	75.79	74.30	72.89	75.74	78.39	76.9	79.98	78.50	79.92	79.20	78.64	75.64	76.94	77.68	75.67	75.10
Length (cm)	38.3	41.8	45.5	48	45.2	46	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
Weight (g)	840	1060	1360	890	1450	980	1020	920	760	1140	1200	920	660	1100	1320	950	1060	805	895	950
Sex	F	M	M	F	F	M	M	M	M	F	M	M	F	F	F	F	F	M	M	M
Maturity	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
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
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
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
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

Appendix C, Table 2

Detailed fish flesh chemistry data from the EARMP community program (Black Lake), 2011 to 2021.

Chemical ¹	Black Lake (Black Lake)																						
	Lake Whitefish																						
	2016			2018					2019					2020					2021				
	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
LW01	LW02	LW03	LW01	LW02	LW03	LW04	LW05	LW01	LW02	LW03	LW04	LW05	LW01	LW02	LW03	LW04	LW05	LW01	LW02	LW03	LW04	LW05	
Metals																							
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	0.04	0.38	0.24	0.02	0.17	0.33	0.06	0.12	0.03	0.17	0.11	0.1	0.1	0.13	0.12	0.22	0.22	0.04	0.08	0.08	0.07	0.02	0.08
Barium	0.06	0.06	0.01	0.04	0.02	0.04	0.24	0.14	0.02	0.06	<0.01	<0.01	<0.01	<0.01	0.02	<0.01	<0.01	<0.01	0.02	0.02	0.02	<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	0.003	<0.002	<0.002	<0.002
Chromium	<0.1	<0.1	<0.1	<0.1	<0.1	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
Cobalt	0.006	0.002	0.002	<0.002	0.003	0.004	0.003	0.004	0.002	<0.002	<0.002	0.002	0.004	0.008	0.003	0.003	0.004	<0.002	0.004	0.005	0.003	<0.002	0.004
Copper	0.1	0.17	0.15	0.36	0.18	0.59	0.17	0.14	0.16	0.21	0.22	0.12	0.13	0.19	0.12	0.17	0.18	0.16	0.28	0.2	0.2	0.25	0.18
Iron	2.4	4	2.6	7	2.9	7.6	3.3	2	1.8	2.3	2.9	2.5	2.1	2.9	1.5	2.4	2.2	1.6	1.3	1.4	2	2.4	1.3
Lead	0.002	0.004	0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Manganese	0.1	0.17	0.13	0.14	0.1	0.13	0.12	0.1	0.07	0.11	0.08	0.08	0.12	0.09	0.1	0.1	0.08	0.09	0.1	0.1	0.08	0.08	0.12
Mercury	0.061	0.12	0.088	0.11	0.14	0.1	0.1	0.1	0.12	0.12	0.1	0.1	0.15	0.06	0.12	0.1	0.11	0.06	0.1	0.086	0.25	0.18	0.071
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	0.02	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	<0.01	<0.01	0.02	<0.01	<0.01	<0.01
Selenium	0.32	0.44	0.43	0.13	0.26	0.2	0.17	0.28	0.13	0.2	0.19	0.17	0.13	0.09	0.18	0.24	0.24	0.14	0.18	0.18	0.24	0.14	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
Strontium	0.69	0.15	0.31	0.27	0.15	0.12	0.15	0.22	0.28	0.3	0.17	0.16	0.13	0.23	0.4	0.16	0.22	0.24	0.45	0.25	0.29	0.12	0.23
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	0.02	<0.01	0.01	<0.01	<0.01	0.01	0.03	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.06	0.06	0.04	0.05	0.04	<0.01	0.02	<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	<0.001	<0.001	<0.001	0.002	0.002	<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	4.8	4.2	4.8	4.5	4.8	5.2	3	3.6	3.4	3.2	3.9	2.4	3.4	6.1	3.2	4.2	4.9	3.8	6.1	3.8	5.4	3.4	4.9
Physical Properties																							
Moisture (%)	75.55	80.28	76.47	76.92	82.85	80.16	80.48	80.51	77.49	78.97	77.39	76.72	78.46	78.90	78.96	79.76	79.07	76.91	75.04	76.70	76.90	77.66	75.49
Length (cm)	50.6	47.1	39.9	47	44.5	39	42.2	45.7	49.5	45	38.8	43.6	47.6	43.3	42.5	40.4	41.7	46.0	45.8	47.7	47.6	42.3	47.5
Weight (g)	1580	1280	940	1420	1170	720	1000	1140	1920	1420	880	1140	2080	1240	1040	900	890	1520	1430	1710	1710	1160	1600
Sex	F	F	M	F	M	M	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F
Maturity	A	A	A	A	U	U	U	U	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
Age (years)	16	27	16	18	18	21	11	18	20	31	20	19	31	8	24	18	25	10	10	10	14	9	8
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)	0.0004	0.0004	0.0006	<0.0002	0.0004	0.0002	0.0004	0.0002	<0.0002	0.0002	0.0003	<0.0002	<0.0002	0.0002	0.0002	0.0003	0.0009	0.0008	<0.0002	0.0003	<0.0002	<0.0002	<0.0002
Radium-226 (Bq/g)	<0.00006	<0.00005	<0.00006	<0.00006	<0.00005	<0.00005	<0.00006	<0.00005	<0.00006	<0.00006	<0.00007	<0.00006	<0.00007	<0.00006	<0.00006	<0.00007	<0.00007	<0.00006	<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	<0.0001	<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, U = unknown.

Appendix C, Table 3

Detailed fish flesh chemistry data from the EARMF community program (Camsell Portage), 2011 to 2021.

Chemical ¹	Camsell Portage (Ellis Bay)														
	Lake Trout														
	2011					2012					2013				
	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	
Metals															
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
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	0.12	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
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
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	<0.002	<0.002	<0.002	<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
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
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
Iron	4.5	3	1	2.2	2	1.5	2.7	3.5	5.8	1.6	1.4	2.1	2.1	2.6	2.4
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	<0.002
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
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
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	0.03	<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
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
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	0.3	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
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
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	0.07	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
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
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	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
Physical Properties															
Moisture (%)	73.73	71.70	74.10	70.34	67.36	73.93	76.07	75.33	76.29	72.60	69.45	68.65	72.36	78.67	79.54
Length (cm)	49.8	48.6	53.9	48.5	55.6	62.2	69.1	53	60.3	63.5	55	56.1	55.2	55.9	55.6
Weight (g)	1490	1480	1920	1420	2480	3640	2920	1420	1760	2560	2200	1920	1720	1920	1740
Sex	M	M	F	F	F	F	M	M	M	F	M	F	M	M	M
Maturity	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
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
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
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
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

Appendix C, Table 3

Detailed fish flesh chemistry data from the EARMP community program (Camsell Portage), 2011 to 2021.

Chemical ¹	Camsell Portage (Ellis Bay)																	
	Lake Trout																	
	2014			2016			2019			2020		2021						
	GN1-1	GN1-1	GN1-1	AN1-1	AN1-1	AN1-1	GN1-1	GN1-1	GN1-1	GN1-1	GN1-1	GN1-1	GN1-1	GN1-1	GN1-1	GN1-1	GN1-1	GN1-1
LT03	LT04	LT05	LT01	LT02	LT03	LT01	LT02	LT03	LT04	LT05	LT01	LT02	LT01	LT02	LT03	LT04	LT05	
Metals																		
Aluminum	<0.5	0.7	<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
Arsenic	0.13	0.11	0.06	0.11	0.07	0.12	0.13	0.07	0.23	0.05	0.06	0.24	0.13	0.11	0.08	0.09	0.37	0.11
Barium	0.04	0.02	0.02	0.02	0.03	0.04	0.02	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	0.04	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
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	0.003	<0.002	0.004	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
Copper	0.39	0.29	0.4	0.49	0.26	0.42	0.26	0.27	0.28	0.28	0.23	0.43	0.32	0.24	0.38	0.18	0.18	0.22
Iron	3	3.8	4	2.6	2.6	4.2	2.8	2.3	2.9	2	2.6	3	6.4	1.9	2.6	2.3	1.9	2.8
Lead	0.002	<0.002	0.004	<0.002	0.004	0.003	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.004	<0.002	0.003	<0.002	<0.002
Manganese	0.07	0.08	0.07	0.07	0.13	0.07	0.1	0.07	0.07	0.07	0.07	0.11	0.12	0.08	0.06	0.08	0.05	0.05
Mercury	0.32	0.37	0.3	0.12	0.13	0.18	0.08	0.086	0.078	0.16	0.23	0.15	0.24	0.24	0.16	0.27	0.14	0.27
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	0.03	<0.01	0.06	<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
Selenium	0.19	0.21	0.17	0.21	0.17	0.2	0.15	0.13	0.14	0.14	0.13	0.18	0.2	0.17	0.18	0.15	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
Strontium	0.15	0.31	0.14	0.18	0.43	0.26	0.2	0.05	0.27	0.21	0.12	0.28	0.19	0.27	0.16	0.30	0.15	0.08
Thallium	0.01	0.01	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	<0.01	<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	0.08	0.09	0.09	<0.01	<0.01	0.01	0.04	<0.01	<0.01	<0.01	<0.01	0.04	0.05	<0.01	<0.01	<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	0.003	<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	5	5.1	6.3	3.7	5.2	6.2	2.8	2.3	8.6	2.5	3.5	4.7	6.6	4.0	3.8	5.6	4.3	4.8
Physical Properties																		
Moisture (%)	75.37	77.41	77.04	71.70	72.13	74.82	75.97	72.58	74.83	76.43	78.91	75.34	78.21	76.61	75.40	78.23	72.62	77.18
Length (cm)	51.5	52.2	59.1	56.2	49.8	56.1	52.8	52.5	49.7	54.7	57.3	47.2	57.0	53.8	54.5	56.7	58.7	55.5
Weight (g)	1750	1450	2360	2120	1660	1960	1840	2040	1580	2020	2460	1400	2140	1740	2040	2460	2680	2550
Sex	M	M	M	M	M	M	M	M	M	M	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
Age (years)	13	14	17	12	12	16	11	11	10	16	26	12	24	12	13	18	19	24
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)	<0.00003	<0.00005	<0.00006	<0.00006	<0.00006	<0.00006	<0.00007	<0.00008	<0.00006	<0.00006	<0.00006	<0.00005	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006
Thorium-230 (Bq/g)	<0.00006	<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

Appendix C, Table 3

Detailed fish flesh chemistry data from the EARMP community program (Camsell Portage), 2011 to 2021.

Chemical ¹	Camsell Portage (Ellis Bay)											
	Lake Whitefish											
	2011					2012		2013				
	GN1-1 LW06	GN1-1 LW07	GN1-1 LW08	GN1-1 LW09	GN1-1 LW10	GN1-1 LW06	GN1-1 LW07	GN1-1 LW06	GN1-1 LW07	GN1-1 LW08	GN1-1 LW09	GN1-1 LW10
Metals												
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
Strontium	0.15	0.74	1	0.18	0.24	0.15	0.23	0.51	0.64	0.43	0.2	0.25
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
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
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
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
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
Zinc	3	2.8	4.4	3.3	3.1	2.8	3.2	5.5	3.3	2.5	3.9	3.3
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
Length (cm)	32	43.2	40	39.5	38.6	49.1	48.5	40.2	44.8	37.9	37.4	44.6
Weight (g)	1250	1260	1380	1120	880	1180	1120	840	1120	820	720	1380
Sex	M	M	F	F	F	M	M	F	F	F	M	M
Maturity	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
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
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
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
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

Appendix C, Table 3

Detailed fish flesh chemistry data from the EARMP community program (Camsell Portage), 2011 to 2021.

Chemical ¹	Camsell Portage (Ellis Bay)																	
	Lake Whitefish												Northern Pike					
	2014					2016			2021				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	AN1-1	AN1-1	AN1-1	AN1-1	AN1-1
LW06	LW07	LW08	LW09	LW10	LW06	LW07	LW08	LW01	LW02	LW03	LW04	LW05	NP01	NP02	NP03	NP04	NP05	
Metals																		
Aluminum	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	<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
Arsenic	0.25	0.26	0.33	0.03	0.05	0.24	0.09	0.07	0.03	0.14	0.13	0.08	0.13	0.09	0.15	0.09	0.12	0.1
Barium	0.09	0.02	0.04	0.02	<0.01	0.02	0.01	0.03	<0.01	0.04	<0.01	<0.01	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
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	0.006	0.004	0.007	0.008	0.003	0.006	0.004	0.004	0.007	0.002	0.005	0.017	0.007	0.003	0.003	<0.002	<0.002	0.003
Copper	0.36	0.23	0.19	0.21	0.22	0.26	0.24	0.18	0.22	0.21	0.16	0.14	0.21	0.39	0.45	0.16	0.17	0.28
Iron	4.5	2.3	3.8	2.4	2.9	2.8	2.6	1.8	2.6	1.4	1.4	0.7	1.3	2.8	3.2	1.3	0.6	3.2
Lead	0.008	0.005	0.008	0.006	<0.002	<0.002	<0.002	<0.002	0.004	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Manganese	0.16	0.07	0.1	0.07	0.08	0.11	0.09	0.07	0.11	0.09	0.10	0.13	0.08	0.08	0.09	0.08	0.08	0.08
Mercury	0.051	0.06	0.06	0.044	0.058	0.037	0.043	0.036	0.099	0.060	0.052	0.13	0.082	0.19	0.13	0.08	0.17	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
Nickel	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	<0.01	<0.01	<0.01
Selenium	0.25	0.23	0.27	0.2	0.24	0.28	0.27	0.25	0.20	0.27	0.21	0.34	0.26	0.2	0.17	0.22	0.18	0.19
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
Strontium	0.92	0.24	0.28	0.71	0.21	0.24	0.22	0.27	0.23	0.38	0.19	0.16	0.56	0.16	0.2	0.18	0.11	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	0.04	<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	<0.01	<0.01	<0.01
Titanium	0.11	0.11	0.16	0.1	0.12	<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
Uranium	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	<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	4.9	3.6	6.4	3.8	4	3.9	3.3	5.1	4.4	4.4	4.4	4.6	4.6	4.2	9.8	5.4	4.9	6.5
Physical Properties																		
Moisture (%)	75.83	74.78	76.26	77.59	74.18	72.23	74.17	76.38	75.71	73.83	76.50	78.26	72.88	76.89	77.35	76.06	77.29	79.91
Length (cm)	41.3	44	47.6	38.2	43.5	45.4	45	49.6	45.8	39.8	39.5	52.4	43	76	67.7	67.8	72.3	89.5
Weight (g)	980	1280	1460	880	1400	1560	1540	1880	1660	1080	1070	2380	1880	2800	2760	1660	2760	4860
Sex	F	F	F	F	F	M	M	F	M	M	U	M	F	F	M	F	F	F
Maturity	A	A	A	A	A	A	A	A	A	A	U	A	A	A	A	A	A	A
Age (years)	14	14	14	8	14	15	15	11	7	10	9	15	12	6	9	5	7	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
Polonium-210 (Bq/g)	0.0002	<0.0002	0.0002	0.0007	0.0012	<0.0002	0.0009	0.0002	0.0003	<0.0002	0.0005	<0.0002	0.0011	0.0002	0.0004	0.0008	0.0003	0.0003
Radium-226 (Bq/g)	<0.00006	<0.00007	<0.00006	<0.00005	<0.00005	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00009	<0.00006	<0.00007	<0.00008	<0.00006	0.00008
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	<0.0002	<0.0001	<0.0001	<0.0002	<0.0002	<0.0003

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

Appendix C, Table 4

Detailed fish flesh chemistry data from the EARMF community program (Fond du Lac), 2011 to 2021.

Chemical ¹	Fond du Lac (Fond du Lac River)																			
	Lake Trout																			
	2011					2012					2013					2014				
	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	
Metals																				
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	0.6
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
Arsenic	0.17	0.08	0.1	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
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
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
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
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
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
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
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
Iron	2.1	2.1	3.2	1.8	2.8	3.4	1.8	1.4	4	1.4	2.2	1.3	1.6	2.1	1.3	2.6	2.3	3.3	2.8	3.6
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
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
Mercury	0.26	0.3	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
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
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
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
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
Strontium	0.11	0.16	0.18	0.2	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
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
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
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
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
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
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
Physical Properties																				
Moisture (%)	76.91	76.77	74.35	75.75	71.88	77.01	75.50	69.03	77.64	68.66	74.35	74.57	75.49	72.33	73.93	81.13	73.27	76.95	79.64	74.40
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
Weight (g)	1430	1310	2020	1230	1530	1680	1420	1940	1840	2280	1520	1940	2200	1640	1620	1405	2205	2860	1670	2410
Sex	M	F	F	F	M	M	M	F	F	F	M	M	M	M	M	F	M	F	F	F
Maturity	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
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
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
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
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

Appendix C, Table 4

Detailed fish flesh chemistry data from the EARMF community program (Fond du Lac), 2011 to 2021.

Chemical ¹	Fond du Lac (Fond du Lac River)																						
	Lake Trout																						
	2016			2018					2019					2020					2021				
	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	LT01	LT02	LT03	LT04	LT05	LT01	LT02	LT03	LT04	LT05	LT06	LT07	LT08	LT09	LT10	LT01	LT02	LT03	LT04	LT05	
Metals																							
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	0.05	0.05	0.07	0.16	0.1	0.12	0.21	0.05	0.09	0.05	0.06	0.08	0.13	0.06	0.02	0.09	0.2	0.28	0.04	0.10	0.17	0.03	0.04
Barium	0.03	0.06	0.07	0.61	0.36	0.22	0.25	0.44	<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	0.02
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
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	0.003	0.012	<0.002	<0.002	<0.002	0.003	<0.002	<0.002	<0.002	0.002	<0.002	<0.002	<0.002	0.004	0.004	0.002	<0.002	0.004	0.002	0.002	0.002	0.004
Copper	0.22	0.33	0.33	0.41	0.34	0.45	0.35	0.33	0.22	0.22	0.2	0.42	0.2	0.27	0.36	0.65	1	0.45	0.31	0.27	0.24	0.24	0.15
Iron	3	2.2	5	4	3	4.4	3.5	5	2	1.5	2.3	3.6	2.9	3.8	5.9	6	7.9	4	3.2	2.6	2.5	2.8	1.0
Lead	0.002	0.002	0.003	<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	0.005	<0.002	<0.002	<0.002	<0.002
Manganese	0.07	0.08	0.08	0.07	0.09	0.1	0.08	0.09	0.08	0.05	0.07	0.07	0.06	0.07	0.06	0.1	0.11	0.1	0.09	0.10	0.07	0.06	0.08
Mercury	0.19	0.085	0.25	0.15	0.19	0.11	0.16	0.18	0.21	0.17	0.22	0.14	0.2	0.32	0.28	0.2	0.24	0.21	0.59	0.20	0.18	0.38	0.44
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	0.04	<0.01	<0.01	0.01	<0.01	<0.01	<0.01	<0.01
Selenium	0.16	0.18	0.16	0.17	0.14	0.16	0.14	0.17	0.1	0.11	0.1	0.13	0.11	0.12	0.15	0.18	0.16	0.15	0.20	0.19	0.16	0.19	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	<0.002
Strontium	0.08	0.14	0.09	0.57	0.33	0.28	0.47	0.51	0.16	0.09	0.08	0.06	0.36	0.12	0.08	0.25	0.38	0.14	0.29	0.16	0.18	0.09	0.09
Thallium	<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	<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	<0.01	<0.01	0.01	0.01	0.01	0.01	<0.01	0.01	<0.01	0.01	0.02	<0.01	<0.01	0.03	0.04	0.06	0.04	0.04	<0.01	0.09	<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	<0.001	<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	6.1	3	3.6	5.6	4.3	4.1	4.9	4.3	2.8	2.2	2.8	3.2	3.3	3.2	4.3	3.9	7.5	3.8	9.2	3.9	4.2	3.3	4.5
Physical Properties																							
Moisture (%)	77.54	71.06	72.59	73.29	74.63	77.43	64.88	76.64	74.46	73.12	74.54	76.15	75.12	77.69	81.82	71.29	79.87	75.50	79.52	77.78	74.53	81.51	79.85
Length (cm)	58.9	57.6	54	55.9	58.2	51.1	59.3	58	58.5	52.7	55.3	52.4	57.2	59.5	56.0	59.8	56.7	57.5	45.6	33.3	38.7	52.8	50.8
Weight (g)	2160	2060	1740	1790	1950	1150	2300	2190	2240	1440	1900	1580	2300	1900	1740	2500	2040	2340	980	380	600	1620	1630
Sex	F	F	M	M	F	M	F	M	F	M	F	M	F	U	M	U	M	M	F	U	U	M	F
Maturity	A	A	A	U	A	U	U	U	A	A	A	A	A	A	A	A	A	A	A	U	U	A	A
Age (years)	18	11	21	15	17	11	15	21	20	9	22	15	25	12	24	13	11	16	12			12	13
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	<0.00006	<0.00006	<0.00005	<0.00006	<0.00007	<0.00006	<0.00007	<0.00006	<0.00006	<0.00005	<0.00005	<0.00007	<0.00006	<0.00005	<0.00006	<0.00006	<0.00006	<0.00006	<0.00005	<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	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001

Appendix C, Table 4

Detailed fish flesh chemistry data from the EARMF community program (Fond du Lac), 2011 to 2021.

Chemical ¹	Fond du Lac (Fond du Lac River)																			
	Lake Whitefish																			
	2011					2012					2013					2014				
	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	
Metals																				
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
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
Arsenic	0.4	0.19	0.2	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
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
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
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
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
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
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
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
Iron	1.7	2.9	1.3	2.6	6	2	1	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
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
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
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
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
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
Selenium	0.25	0.15	0.22	0.2	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
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
Strontium	1	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
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
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
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
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
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
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
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
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
Weight (g)	900	1340	805	1100	1120	940	1040	1100	860	520	1420	1120	980	820	1000	965	1240	910	965	875
Sex	M	M	F	F	M	M	F	M	F	M	F	M	F	M	M	F	F	M	F	M
Maturity	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
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
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
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
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

Appendix C, Table 4

Detailed fish flesh chemistry data from the EARMF community program (Fond du Lac), 2011 to 2021.

Chemical ¹	Fond du Lac (Fond du Lac River)																						
	Lake Whitefish																						
	2016			2018					2019					2020					2021				
	GN1-1 LW04	GN1-1 LW05	GN1-1 LW06	GN1-1 LW01	GN1-1 LW02	GN1-1 LW03	GN1-1 LW04	GN1-1 LW05	GN1-1 LW01	GN1-1 LW02	GN1-1 LW03	GN1-1 LW04	GN1-1 LW05	GN1-1 LW01	GN1-1 LW02	GN1-1 LW03	GN1-1 LW04	GN1-1 LW05	GN1-1 LW01	GN1-1 LW02	GN1-1 LW03	GN1-1 LW04	GN1-1 LW05
Metals																							
Aluminum	<0.5	0.6	<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	0.03	0.29	0.26	0.16	0.1	0.12	0.21	0.05	0.02	0.02	0.24	0.02	0.16	0.24	0.26	0.2	0.23	0.32	0.04	0.03	0.03	0.03	0.02
Barium	0.06	0.21	0.01	0.61	0.36	0.22	0.25	0.44	<0.01	0.01	<0.01	<0.01	<0.01	0.02	<0.01	<0.01	<0.01	<0.01	<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	0.003	0.003	<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
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	0.016	0.011	0.004	<0.002	<0.002	<0.002	0.003	<0.002	0.005	0.011	0.007	0.01	0.008	0.009	0.002	0.003	0.005	0.008	0.008	0.009	0.009	0.010	0.004
Copper	0.19	0.1	0.26	0.41	0.34	0.45	0.35	0.33	0.19	0.2	0.13	0.18	0.14	0.12	0.11	0.17	0.14	0.14	0.16	0.15	0.15	0.20	0.17
Iron	1.8	1.9	2.6	4	3	4.4	3.5	5	3	3.4	3	2.3	1.4	3.8	1.2	2.1	2.3	3.3	1.8	3.2	2.3	2.2	1.8
Lead	0.004	0.005	<0.002	<0.002	<0.002	<0.002	0.005	<0.002	<0.002	<0.002	0.004	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.002	<0.002	<0.002	<0.002
Manganese	0.08	0.22	0.09	0.07	0.09	0.1	0.08	0.09	0.05	0.12	0.08	0.14	0.19	0.09	0.08	0.09	0.08	0.09	0.12	0.11	0.09	0.09	0.06
Mercury	0.079	0.12	0.065	0.15	0.19	0.11	0.16	0.18	0.15	0.11	0.095	0.046	0.075	0.11	0.08	0.11	0.1	0.08	0.13	0.13	0.11	0.12	0.10
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	0.02	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	<0.01	0.02	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Selenium	0.34	0.24	0.16	0.17	0.14	0.16	0.14	0.17	0.12	0.14	0.24	0.15	0.27	0.27	0.24	0.26	0.19	0.31	0.17	0.19	0.23	0.23	0.26
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	0.21	1.4	0.31	0.57	0.33	0.28	0.47	0.51	0.3	0.36	0.25	0.24	0.26	0.24	0.19	0.17	0.26	0.19	0.10	0.09	0.08	0.21	0.08
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	0.02	0.01	<0.01	0.01	0.01	0.01	<0.01	0.01	0.07	<0.01	<0.01	<0.01	<0.01	0.03	0.03	0.04	0.04	0.03	<0.01	<0.01	<0.01	<0.01	<0.01
Uranium	<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	0.003	<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	4	3.8	5.6	4.3	4.1	4.9	4.3	3.5	4.8	3.1	4.6	3.3	4	2.6	2.9	2.8	3.9	4.0	7.1	7.6	4.2	4.1
Physical Properties																							
Moisture (%)	74.60	81.27	73.88	73.29	74.63	77.43	64.88	76.64	78.08	79.05	79.37	76.69	77.22	79.02	79.31	79.99	80.97	79.37	78.59	80.88	80.18	77.34	79.40
Length (cm)	47	38.6	47.4	38	40.6	39.3	37	38.3	49.3	44.5	40	45.4	43.5	39.5	39.4	40.6	45.5	40.9	46.2	45.5	42.5	44.3	42.7
Weight (g)	1540	840	1360	840	1110	850	800	760	1460	1260	1140	1480	1340	1000	960	1100	1380	1080	1380	1240	1160	1320	1200
Sex	F	M	F	M	M	M	M	M	F	F	M	M	M	M	M	F	F	F	M	M	F	F	M
Maturity	A	A	A	U	U	U	U	U	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
Age (years)	11	33	16	25	30	23	37	26	16	11	34	9	12	33	25	30	26	29	15	16	10	11	14
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	0.0003	<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
Radium-226 (Bq/g)	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00005	<0.00006	<0.00007	<0.00006	<0.00006	<0.00005	<0.00006	<0.00006	<0.00006	<0.00005	<0.00005	<0.00006	<0.00007	<0.00006	<0.00005	0.0002	<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	<0.0001	<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, U = unknown, - = data not available.

Appendix C, Table 5

Detailed fish flesh chemistry data from the EARMP community program (Stony Rapids), 2011 to 2021.

Chemical ¹	Stony Rapids (Fond du Lac River)																			
	Lake Trout																			
	2011					2012					2013					2014				
	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
LT01	LT02	LT03	LT04	LT05	LT06	LT07	LT08	LT09	LT01	LT02	LT03	LT04	LT05	LT01	LT02	LT03	LT04	LT05	LT05	
Metals																				
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	
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	
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	
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	0.1	0.09	<0.01	0.07	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	
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	
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	
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	
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	
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	
Iron	1.9	1.7	1.5	1.6	1.2	2.3	8.6	2.6	4	3.6	3.3	6.1	3.1	2.7	10	8.9	3	2.3	2.1	
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	
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	
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	
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	
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	
Selenium	0.1	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	
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	
Strontium	0.1	0.09	0.21	0.23	0.09	0.13	0.14	0.14	0.14	0.08	0.14	0.3	0.14	0.1	0.26	0.15	0.2	0.34	0.28	
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	
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	
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	
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	
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	
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	
Physical Properties																				
Moisture (%)	77.77	77.90	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	76.30	76.67	75.55	
Length (cm)	54.9	55.9	57.2	64.9	69.6	57.2	62.8	61	59.8	52	52.5	55	57	51.2	49.5	51.9	44.7	54	48.7	
Weight (g)	1750	2060	2180	2840	3720	1520	2060	1840	1820	1720	1680	1940	2060	1600	1580	1640	1100	1670	1440	
Sex	F	F	F	F	M	M	M	M	M	F	M	F	M	F	F	M	M	M	F	
Maturity	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	
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	
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	
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	
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	

Appendix C, Table 5

Detailed fish flesh chemistry data from the EARMP community program (Stony Rapids), 2011 to 2021.

Chemical ¹	Stony Rapids (Fond du Lac River)																					
	Lake Trout																					
	2016			2018					2019					2020				2021				
	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	LT01	LT02	LT03	LT04	LT05	LT01	LT02	LT03	LT04	LT05	LT06	LT07	LT08	LT09	LT01	LT02	LT03	LT04	LT05	
Metals																						
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	
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	0.1	0.12	0.08	0.11	0.14	0.12	0.08	0.18	0.03	0.05	0.11	0.05	0.03	0.04	0.04	0.05	0.03	0.07	0.06	0.08	0.06	
Barium	0.02	0.05	0.03	0.11	0.15	0.06	0.1	0.19	0.01	<0.01	<0.01	<0.01	0.02	<0.01	<0.01	0.02	<0.01	<0.01	<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	
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	
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	
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	
Cobalt	0.004	0.004	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	
Copper	0.43	0.73	0.61	0.28	0.41	0.4	0.36	0.33	0.28	0.25	0.32	0.19	0.49	0.29	0.36	0.38	0.29	0.21	0.25	0.34	0.32	
Iron	4	6.1	4.2	3.2	5	4.4	4.4	4.3	4.5	3.6	2.8	1.6	4.4	3	4	4.1	5.4	3.5	2.1	7.2	3.1	
Lead	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.002	<0.002	0.005	<0.002	<0.002	<0.002	0.002	<0.002	<0.002	0.003	<0.002	<0.002	<0.002	<0.002	<0.002	
Manganese	0.05	0.05	0.08	0.08	0.07	0.06	0.08	0.06	0.06	0.06	0.11	0.06	0.06	0.15	0.08	0.1	0.08	0.07	0.06	0.07	0.06	
Mercury	0.14	0.2	0.16	0.1	0.11	0.1	0.11	0.099	0.24	0.25	0.19	0.17	0.13	0.17	0.13	0.32	0.32	0.37	0.31	0.33	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	
Nickel	<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	0.07	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
Selenium	0.18	0.16	0.16	0.15	0.14	0.17	0.18	0.14	0.14	0.12	0.14	0.12	0.12	0.19	0.2	0.18	0.14	0.13	0.15	0.15	0.17	
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	0.22	0.25	0.17	0.3	0.24	0.21	0.24	0.14	0.19	0.12	0.72	0.08	0.33	0.67	0.39	0.55	0.18	0.20	0.15	0.25	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	
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	
Titanium	0.02	<0.01	0.01	0.02	0.02	0.01	0.02	0.05	0.02	<0.01	<0.01	<0.01	<0.01	0.04	0.04	0.05	0.05	<0.01	<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	<0.001	<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	3.5	3.8	3.2	5.1	4.4	4.9	4.3	4.5	3.7	2.9	5.8	2.3	3.7	3.7	5.3	6.9	4.7	8.9	5.6	5.3	4.0	
Physical Properties																						
Moisture (%)	70.53	75.35	72.93	77.90	76.77	74.99	78.64	74.12	79.89	79.11	76.18	77.07	79.64	76.00	75.89	79.24	81.49	81.03	81.49	81.25	78.31	
Length (cm)	55	55.7	52.1	47.6	53.9	56.2	52.5	61	61.8	59.7	50.8	59.2	52	65.2	61.2	58.7	57.2	59.4	54.1	58.9	53.5	
Weight (g)	2080	1960	1920	1130	1640	1680	1660	2480	2180	2500	1560	2120	1480	2520	2290	2420	1980	2220	1840	2050	1820	
Sex	F	F	F	F	F	M	F	F	M	M	M	M	M	M	M	F	M	F	F	F	F	
Maturity	A	A	A	U	U	U	U	U	A	A	A	A	A	A	A	A	A	A	A	A	A	
Age (years)	15	11	15	13	13	13	12	11	21	25	16	19	14	12	11	26	31	26	18	28	18	
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	<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	
Radium-226 (Bq/g)	<0.00006	<0.00005	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00005	<0.00006	<0.00007	<0.00007	<0.00006	<0.00006	<0.00005	<0.00005	<0.00005	<0.00006	<0.00006	<0.00005	<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	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	

Appendix C, Table 5

Detailed fish flesh chemistry data from the EARMP community program (Stony Rapids), 2011 to 2021.

Chemical ¹	Stony Rapids (Fond du Lac River)																			
	Lake Whitefish																			
	2011					2012					2013					2014				
	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	
Metals																				
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
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
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
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
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
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
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
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
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
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
Iron	3.5	2	2	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
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
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
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
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
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
Selenium	0.13	0.1	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
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
Strontium	0.23	0.26	2	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
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
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
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
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
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
Zinc	4	4	4.1	8.3	4.7	6.1	7	3.6	3.4	3.4	4	4.6	3.4	4.9	4.7	3.8	2.8	3.6	4.2	3.9
Physical Properties																				
Moisture (%)	76.78	78.07	78.94	77.19	75.50	74.99	80.97	76.82	80.22	79.53	76.95	78.07	73.93	75.51	76.73	74.28	79.20	76.81	75.18	76.08
Length (cm)	47.8	44.8	48.1	51.4	42.5	48	47	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
Weight (g)	1490	1640	1730	2060	1410	1420	980	1680	1360	1520	1180	940	1100	1000	960	1300	1120	1120	1130	1560
Sex	F	F	F	F	M	F	F	M	F	F	M	F	F	M	M	F	F	F	M	F
Maturity	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
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
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
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
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

Appendix C, Table 5

Detailed fish flesh chemistry data from the EARMP community program (Stony Rapids), 2011 to 2021.

Chemical ¹	Stony Rapids (Fond du Lac River)																						
	Lake Whitefish																						
	2016			2018					2019					2020					2021				
	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
LW04	LW05	LW06	LW01	LW02	LW03	LW04	LW05	LT01	LT02	LT03	LT04	LT05	LT01	LT02	LT03	LT04	LT05	LW01	LW02	LW03	LW04	LW05	
Metals																							
Aluminum	<0.5	0.6	<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	0.04	0.14	0.13	0.17	0.1	0.08	0.01	0.03	0.01	0.02	0.02	0.23	0.06	0.02	0.03	0.02	0.06	0.05	0.02	0.07	0.06
Barium	<0.01	0.04	0.05	0.03	0.22	0.07	0.14	0.04	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	<0.01	<0.01	<0.01	0.03	<0.01	0.03	<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	0.005	<0.002	<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
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	0.012	0.023	0.007	0.009	0.014	0.003	0.006	<0.002	0.008	0.008	0.007	0.009	0.007	0.002	0.004	0.003	0.009	0.003	0.004	0.004	0.013	0.009	0.005
Copper	0.17	0.11	0.2	0.18	0.26	0.24	0.24	0.32	0.16	0.17	0.14	0.12	0.18	0.22	0.18	0.2	0.26	0.17	0.26	0.18	0.26	0.25	0.32
Iron	1.9	1.7	1.8	3	3.2	3.2	4.3	3.5	1.6	2.4	1.7	2.1	2.2	2.4	1.8	2.6	2.7	1.8	3.5	1.7	3.0	2.9	3.1
Lead	0.004	0.004	0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<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	0.08	0.08	0.1	0.11	0.11	0.11	0.08	0.09	0.1	0.06	0.09	0.1	0.15	0.08	0.14	0.09	0.15	0.09	0.11	0.09	0.14	0.06
Mercury	0.036	0.048	0.039	0.03	0.032	0.052	0.073	0.1	0.043	0.066	0.087	0.064	0.082	0.15	0.09	0.04	0.07	0.09	0.11	0.072	0.13	0.058	0.084
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	0.02	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	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Selenium	0.12	0.17	0.1	0.08	0.16	0.19	0.22	0.21	0.08	0.12	0.1	0.11	0.11	0.31	0.13	0.11	0.12	0.17	0.11	0.19	0.14	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	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Strontium	0.5	0.5	0.34	0.28	0.45	0.4	0.46	0.29	0.29	0.36	0.13	0.34	0.25	0.3	0.29	0.3	0.38	0.4	0.26	0.25	0.44	0.30	0.22
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	<0.01	<0.01	0.01	0.01	0.02	0.01	0.02	0.03	0.01	<0.01	<0.01	<0.01	<0.01	0.04	0.03	0.04	0.04	0.03	<0.01	<0.01	<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	<0.001	<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	4.5	4.9	4.4	4.6	4.6	5.6	3.5	4.5	3.4	6.2	2.4	3	2.6	4.2	3.1	4.2	5.3	4.8	6.2	3.6	5.2	5.7	5.5
Physical Properties																							
Moisture (%)	76.94	75.08	76.91	79.48	75.79	73.45	77.61	78.27	77.70	77.03	80.34	75.85	74.44	79.89	78.62	77.46	78.42	73.15	78.42	79.19	77.21	75.30	78.04
Length (cm)	42	47.4	41	41.4	48.7	44	40.6	48.2	46.4	43.7	47.3	45.8	42.6	39.3	46.8	44.4	47.4	43.8	45.3	47.3	34.4	44.2	46.7
Weight (g)	1160	1520	1040	1070	1420	1080	850	1420	1560	1460	1540	1420	1240	800	1520	1350	1600	1300	1360	1640	1380	1720	1480
Sex	F	F	F	F	F	M	M	F	F	F	F	M	M	M	F	M	F	M	F	F	F	F	F
Maturity	A	A	A	U	U	U	U	U	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
Age (years)	8	12	12	10	11	13	13	10	8	15	18	16	14	24	21	6	15	17	16	7	10	6	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	0.002	<0.001	<0.001	<0.001	<0.001	<0.001
Polonium-210 (Bq/g)	<0.0002	<0.0002	<0.0002	0.0004	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.0003	0.0003	<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	<0.00006	<0.00006	<0.00006	<0.00007	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00008	<0.00008	<0.00007	<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	<0.0001	<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, U = unknown.

Appendix C, Table 6

Detailed fish flesh chemistry data from the EARMP community program (Uranium City), 2011 to 2021.

Chemical ¹	Uranium City (Prospectors Bay)														
	Lake Trout														
	2012					2013					2014				
	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	
Metals															
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
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	0.07	0.07	0.08	0.07	0.13	0.07	0.04	0.04	0.07	0.07	0.06	0.04	0.07	0.05	0.2
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
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	<0.002	<0.002	<0.002	<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
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
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
Iron	2.2	4.5	2	3.3	1.9	1.2	1.6	2.7	7.5	1.9	2.1	2.1	2.7	3.6	2.8
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
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
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
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	<0.01	0.02	<0.01	<0.01	<0.01	0.01	0.02	<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
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	0.17	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
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	0.07	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
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
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	4.3	4	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
Physical Properties															
Moisture (%)	74.73	78.66	78.14	75.87	76.30	76.09	74.75	77.52	77.24	77.69	74.48	72.13	75.17	78.50	73.75
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
Weight (g)	1380	1700	1520	1840	2140	1500	1580	1580	1540	1900	1940	1710	1605	2305	2010
Sex	M	M	M	M	M	F	M	F	M	F	F	M	M	F	M
Maturity	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
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
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
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
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

Appendix C, Table 6

Detailed fish flesh chemistry data from the EARMP community program (Uranium City), 2011 to 2021.

Chemical ¹	Uranium City (Prospectors Bay)																						
	Lake Trout																						
	2016			2018					2019					2020					2021				
	AN1-1	AN1-1	AN1-1	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	LT01	LT02	LT03	LT04	LT05	LT01	LT02	LT03	LT04	LT05	LT01	LT02	LT03	LT04	LT05	LT01	LT02	LT03	LT04	LT05	
Metals																							
Aluminum	0.6	0.5	0.7	<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	0.09	0.08	0.19	0.06	0.04	0.04	0.16	0.29	0.15	0.12	0.1	0.04	0.06	0.11	0.06	0.03	0.05	0.12	0.08	0.11	0.05	0.30	0.07
Barium	0.01	0.04	0.03	0.04	0.06	0.04	0.05	0.03	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
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	0.004	0.003	0.003	<0.002	0.003	<0.002	<0.002	0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.002	<0.002	<0.002	0.002	<0.002	<0.002
Copper	0.25	0.2	0.63	0.23	0.43	0.23	0.4	0.21	0.35	0.35	0.42	0.27	0.22	0.22	0.31	0.36	0.2	0.32	0.38	0.20	0.16	0.23	0.21
Iron	2.4	1.4	6.4	2.4	5	1.7	2.4	2.1	2	2.2	2.9	2.4	2.1	1.4	1.8	1.8	1.6	2.6	2.9	0.5	1.4	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	0.003	0.004	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Manganese	0.05	0.08	0.11	0.1	0.08	0.09	0.08	0.08	0.06	0.05	0.07	0.06	0.06	0.05	0.1	0.05	0.09	0.08	0.07	0.07	0.08	0.05	0.08
Mercury	0.12	0.14	0.18	0.12	0.24	0.1	0.11	0.27	0.076	0.13	0.15	0.17	0.16	0.18	0.17	0.12	0.2	0.1	0.19	0.15	0.18	0.17	0.13
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	<0.01	<0.01	<0.01	<0.01
Selenium	0.11	0.16	0.18	0.17	0.19	0.17	0.18	0.17	0.17	0.17	0.14	0.16	0.16	0.16	0.18	0.17	0.21	0.17	0.20	0.15	0.15	0.64	0.20
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	0.3	0.08	0.14	0.14	0.14	0.12	0.14	0.2	0.29	0.1	0.1	0.14	0.08	0.26	0.04	0.22	0.2	0.57	0.22	0.08	0.13	0.36	0.17
Thallium	<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
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	<0.01	<0.01	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.02	<0.01	<0.01	0.03	0.04	0.04	0.07	<0.01	<0.01	<0.01	<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	<0.001	<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	3.2	3.2	6.1	2.9	6.6	3.8	4.6	2.7	3.7	3.6	3.2	4.3	2.9	4.4	3.1	3.1	3.6	5.2	7.4	3.0	2.8	6.2	3.9
Physical Properties																							
Moisture (%)	70.91	72.53	72.20	75.87	78.10	76.49	75.43	77.39	72.75	71.40	75.39	75.42	73.01	73.91	73.37	75.05	77.99	75.76	80.11	75.70	74.80	73.69	74.46
Length (cm)	59.6	50.7	54.7	56.3	57.4	51.6	53.5	51	53.5	53.8	58.1	58.6	53.4	58.9	54.3	56.0	54.1	52.1	52.8	54.1	50.5	58.7	54.3
Weight (g)	2840	1760	2140	2120	2060	1500	1750	1620	1820	2040	2460	2720	1880	2360	2220	1880	1740	1620	1500	2220	1660	2720	2070
Sex	F	M	M	F	M	M	M	F	M	M	F	M	M	F	M	M	M	M	M	F	M	F	F
Maturity	A	A	A	U	U	U	U	U	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
Age (years)	15	16	21	18	19	13	13	18	10	17	15	17	16	17	17	11	15	12	9	16	19	14	10
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	<0.00006	<0.00005	<0.00006	<0.00008	<0.00006	<0.00006	<0.00005	<0.00006	<0.00007	<0.00006	<0.00008	<0.00006	<0.00006	<0.00007	<0.00008	<0.00005	<0.00006	<0.00006	<0.00007	<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	<0.0002	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001

Appendix C, Table 6

Detailed fish flesh chemistry data from the EARMP community program (Uranium City), 2011 to 2021.

Chemical ¹	Uranium City (Prospectors Bay)													
	Lake Whitefish													
	2012					2013			2014					
	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	
Metals														
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	
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	
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	
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	
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	
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	
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	
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	
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	
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	
Iron	1	2	1.8	1.6	1.4	2.3	1.8	2.9	4.3	1.8	2	4.4	2.4	
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	
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	
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	
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	
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	
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	
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	
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	
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	
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	
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	
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	
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	
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	
Physical Properties														
Moisture (%)	79.31	78.40	75.72	73.83	76.89	79.25	76.91	72.22	74.04	74.06	76.04	75.15	76.82	
Length (cm)	46.7	49.6	48.8	55	50	46.9	47	42.9	47.2	41.5	45.9	41.7	36.5	
Weight (g)	640	980	1140	1520	1080	1480	1520	1300	1780	1090	1620	1310	750	
Sex	M	M	F	F	F	M	M	F	M	F	M	F	M	
Maturity	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	
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	
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	
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	
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	

Appendix C, Table 6

Detailed fish flesh chemistry data from the EARMP community program (Uranium City), 2011 to 2021.

Chemical ¹	Uranium City (Prospectors Bay)																					
	Lake Whitefish																					
	2016			2018					2019					2020				2021				
	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
LW01	LW02	LW03	LW01	LW02	LW03	LW04	LW05	LW01	LW02	LW03	LW04	LW05	LW06	LW07	LW08	LW09	LW01	LW02	LW03	LW04	LW05	
Metals																						
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	
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	0.04	0.12	0.05	0.08	0.16	0.05	0.04	0.05	0.06	0.07	0.05	0.08	0.14	0.15	0.05	0.04	0.05	0.12	0.26	0.13	0.16	0.12
Barium	0.11	0.04	0.02	0.05	0.1	0.05	0.05	0.09	<0.01	<0.01	0.02	<0.01	<0.01	0.02	<0.01	<0.01	0.1	0.02	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
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	0.003	<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	0.005	0.003	0.004	0.004	0.004	0.004	0.006	0.007	0.002	0.003	0.004	0.002	0.003	0.005	0.007	0.011	0.018	0.002	0.003	0.002	0.003	0.002
Copper	0.21	0.22	0.16	0.23	0.3	0.21	0.33	0.21	0.18	0.13	0.18	0.13	0.16	0.39	0.21	0.35	1.4	0.35	0.24	0.16	0.16	0.21
Iron	1.9	1.5	1.9	2	2.6	2.3	2.5	1.4	1.7	1	3.3	1.5	1.6	4.3	1.8	3.5	10	2.3	4.3	2.2	1.5	1.4
Lead	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	0.01	<0.002	<0.002	<0.002	<0.002	<0.002
Manganese	0.09	0.1	0.09	0.08	0.09	0.13	0.07	0.14	0.14	0.09	0.09	0.08	0.1	0.1	0.11	0.08	0.37	0.08	0.08	0.11	0.10	0.07
Mercury	0.063	0.037	0.074	0.041	0.04	0.043	0.026	0.028	0.083	0.038	0.094	0.061	0.052	0.027	0.026	0.028	0.027	0.039	0.044	0.041	0.069	0.034
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	<0.01	<0.01	0.03	<0.01	<0.01	<0.01	<0.01	<0.01
Selenium	0.28	0.3	0.23	0.26	0.26	0.26	1.9	0.26	0.33	0.28	0.27	0.22	0.33	0.39	1.4	0.28	2.1	0.61	0.002	1.8	0.40	1.1
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
Strontium	0.21	0.48	0.31	0.24	0.31	0.33	0.4	0.4	0.24	0.24	0.3	0.22	0.24	0.29	0.25	0.18	0.92	0.38	0.28	0.27	0.21	0.23
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	<0.01	<0.01	<0.01	<0.01	<0.01
Titanium	<0.01	<0.01	<0.01	0.01	<0.01	<0.01	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.04	0.04	0.05	0.05	<0.01	<0.01	0.01	<0.01	<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	0.002	0.001	0.01	0.033	<0.001	0.002	0.002	<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	6.3	3.8	3.6	5.7	4.1	4.5	5.4	5.6	3.5	3.2	3.8	3.4	3.9	4.1	4.6	4.4	11	5.9	7.6	4.8	4.0	5.0
Physical Properties																						
Moisture (%)	68.43	76.07	73.75	75.53	75.03	73.10	78.38	77.34	75.21	73.42	75.93	76.37	74.76	74.64	77.98	74.98	76.71	74.96	75.28	73.55	73.51	75.88
Length (cm)	57.8	43.6	53.1	41.1	38.4	37.7	46	46.5	48.3	46.3	50.8	49	51.1	48.1	38.5	38.4	29.6	43.4	43.2	46.2	48.8	43.4
Weight (g)	3380	1280	2440	1010	800	810	1520	1360	1840	1520	2060	1760	2080	1840	860	800	320	1300	1320	1520	1770	1260
Sex	M	M	F	F	M	M	F	M	F	F	F	M	M	M	U	M	F	M	F	M	M	M
Maturity	A	A	A	U	U	U	U	U	A	A	A	A	A	A	A	A	A	A	A	A	A	A
Age (years)	18	13	32	11	5	5	13	7	12	14	26	23	17	13	6	8	5	8	11	19	15	7
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	0.0003	<0.0002	0.0002	0.0006	0.0004	0.0005	0.001	0.0004	0.0004	0.0004	0.0004	0.0006	0.0006	0.0012	0.0003	0.0004	0.0008	0.0005	0.0006	0.0002	0.0010
Radium-226 (Bq/g)	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00007	<0.00006	<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	-	<0.0001	<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, U = unknown.

Appendix C, Table 7

Detailed fish flesh chemistry data from the EARMP community program (Wollaston Lake/Hatchet Lake), 2011 to 2021.

Chemical ¹	Wollaston Lake/Hatchet Lake (Welcome Bay, Wollaston Lake)																			
	Lake Trout																			
	2011					2012					2013					2014				
	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
LT01	LT02	LT03	LT04	LT05	LT06	LT07	LT08	LT09	LT10	LT07	LT08	LT09	LT10	LT11	LT07	LT08	LT09	LT10	LT11	
Metals																				
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
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
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
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
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
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
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
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
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
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
Iron	6	4	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
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
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
Mercury	0.15	0.16	0.16	0.2	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
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
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
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
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
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
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
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
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
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	0.002	<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	<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
Physical Properties																				
Moisture (%)	78.93	75.50	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
Length (cm)	51.5	46.3	46.8	47.9	46.6	55.6	50.5	50.8	50.5	52	45.3	46.5	44.1	45.4	48.5	48.4	49.8	52.2	50.6	55.9
Weight (g)	1730	1220	1440	1410	1430	1760	1420	1360	1400	1520	1200	1340	1060	1060	1400	1580	1610	1850	1780	2020
Sex	F	M	M	F	M	M	M	M	M	M	M	M	F	F	F	M	F	M	M	F
Maturity	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
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
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
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
Thorium-230 (Bq/g)	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.00009	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.00008	<0.0001	<0.00009	<0.0001	<0.0001

Appendix C, Table 7

Detailed fish flesh chemistry data from the EARMP community program (Wollaston Lake/Hatchet Lake), 2011 to 2021.

Chemical ¹	Wollaston Lake/Hatchet Lake (Welcome Bay, Wollaston Lake)																						
	Lake Trout																						
	2016			2018					2019					2020					2021				
	GN1-1	GN1-1	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	GN 2-1
LT01	LT02	LT03	LT01	LT02	LT03	LT04	LT05	LT01	LT02	LT03	LT04	LT05	LT01	LT02	LT03	LT04	LT05	LT01	LT02	LT03	LT04	LT05	
Metals																							
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	0.03	0.02	0.09	0.08	0.09	0.04	0.12	0.06	0.1	0.03	0.03	0.04	0.17	0.02	0.03	0.02	0.03	0.06	0.04	0.09	0.04	0.04	0.04
Barium	<0.01	<0.01	<0.01	0.13	0.14	0.09	0.03	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
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	0.004	<0.002	0.003	<0.002	<0.002	<0.002	<0.002	<0.002	0.003	<0.002	0.002	0.003	<0.002	<0.002	<0.002	<0.002	0.003	0.002	0.002	<0.002	0.002	<0.002	<0.002
Copper	0.32	0.33	0.2	0.62	0.31	0.32	0.29	0.56	0.25	0.26	0.18	0.62	0.21	0.31	0.33	0.31	0.24	0.48	0.23	0.26	0.27	0.25	0.19
Iron	3.2	3.4	1.4	4.6	2.3	3.4	4.7	2.7	2.2	1.8	1.3	4.7	1.6	1.9	1.9	2	1.9	4.1	2.5	1.9	1.9	1.6	1.4
Lead	<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	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Manganese	0.11	0.09	0.1	0.09	0.1	0.08	0.11	0.12	0.1	0.07	0.06	0.08	0.09	0.08	0.11	0.08	0.07	0.07	0.10	0.06	0.12	0.08	0.07
Mercury	0.16	0.22	0.22	0.22	0.14	0.14	0.11	0.16	0.072	0.17	0.17	0.17	0.16	0.13	0.19	0.1	0.22	0.16	0.14	0.10	0.11	0.13	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	<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	<0.01	<0.01	<0.01	<0.01
Selenium	0.21	0.24	0.24	0.17	0.19	0.14	0.2	0.29	0.43	0.18	0.21	0.22	0.16	0.22	0.22	0.24	0.22	0.25	0.23	0.16	0.28	0.22	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	<0.002
Strontium	0.06	0.03	0.02	0.24	0.3	0.36	0.1	0.14	0.14	0.05	0.06	0.21	0.1	0.11	0.14	0.15	0.1	0.24	0.18	0.15	0.17	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	<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	0.01	<0.01	0.01	0.02	0.01	0.01	<0.01	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	0.04	0.04	0.05	0.07	0.08	<0.01	<0.01	<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	<0.001	<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	4	2.7	2.4	6.2	5.4	5	4.3	3.7	3.1	2.9	3.7	5.8	4.1	4.7	3.3	3.7	3.3	7	4.2	4.8	4.0	3.5	3.9
Physical Properties																							
Moisture (%)	75.20	77.38	77.09	76.68	75.09	76.32	76.31	76.97	75.27	74.33	73.39	77.05	73.18	75.29	73.85	75.24	74.46	77.26	76.81	73.88	76.67	76.38	78.71
Length (cm)	48	52	52.4	58	47	53.4	54.1	51	49.1	50	56.8	52.7	49.4	46.1	48.1	43.3	44.5	48.7	45.1	42.8	46.2	46.5	51.5
Weight (g)	1600	1800	1980	2360	1520	1860	1840	1900	1680	1560	2260	1920	1600	1300	1440	1220	2160	1400	1120	1180	1240	1300	1940
Sex	F	F	F	F	M	F	F	F	F	F	F	M	F	M	M	M	M	M	F	M	F	M	F
Maturity	A	A	A	A	U	A	U	U	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
Age (years)	11	9	11	13	12	12	10	9	9	10	14	-	13	7	9	7	15	10	10	6	7	8	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	<0.001
Polonium-210 (Bq/g)	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.001	<0.0002	<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	<0.00005	<0.00007	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00005	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00008	<0.00006	<0.00006	<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	<0.0002	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001

Appendix C, Table 7

Detailed fish flesh chemistry data from the EARMP community program (Wollaston Lake/Hatchet Lake), 2011 to 2021.

Chemical ¹	Wollaston Lake/Hatchet Lake (Welcome Bay, Wollaston Lake)																			
	Lake Whitefish																			
	2011					2012					2013					2014				
	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	
Metals																				
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
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
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
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
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
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
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
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
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
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
Iron	2.2	1.3	1.5	3.1	1.4	1.1	1	1.5	1	3	1.8	1.7	2.5	3	1.7	1.7	1.5	2	2.9	1.6
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
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
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
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
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
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
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
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
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
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
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
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
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
Zinc	5.1	3	3.8	4.7	4.3	3.7	4.5	3.2	4.5	4	3.7	3.7	5.5	3.3	3.6	4.9	3.3	4.1	2.8	2.9
Physical Properties																				
Moisture (%)	73.60	75.29	75.27	76.01	73.60	73.90	70.19	74.68	71.83	76.61	73.91	73.39	75.49	79.53	78.40	71.26	72.78	76.40	76.45	79.18
Length (cm)	36.5	38	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
Weight (g)	780	820	940	810	825	1380	880	1060	860	840	620	620	640	700	720	1230	850	930	950	1010
Sex	M	M	M	M	F	M	F	F	F	M	M	F	F	F	M	M	F	M	F	M
Maturity	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
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
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
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
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

Appendix C, Table 7

Detailed fish flesh chemistry data from the EARMP community program (Wollaston Lake/Hatchet Lake), 2011 to 2021.

Chemical ¹	Wollaston Lake/Hatchet Lake (Welcome Bay, Wollaston Lake)																						
	Lake Whitefish																						
	2016			2018					2019					2020					2021				
	GN1-1	GN1-1	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
LW04	LW05	LW06	LW01	LW02	LW03	LW04	LW05	LW01	LW02	LW03	LW04	LW05	LW06	LW07	LW08	LW09	LW10	LW01	LW02	LW03	LW04	LW05	
Metals																							
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	0.13	0.18	0.03	0.13	0.08	0.11	0.16	0.08	0.02	0.1	0.11	0.07	0.1	0.02	0.18	0.24	0.05	0.21	0.22	0.18	0.18	0.27	0.18
Barium	<0.01	<0.01	<0.01	0.26	0.29	0.28	0.23	0.16	<0.01	<0.01	0.01	<0.01	0.02	<0.01	0.03	0.07	<0.01	<0.01	<0.01	<0.01	<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	0.003	0.006	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
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	0.004	0.003	0.004	0.004	0.002	0.004	0.003	<0.002	0.004	<0.002	0.002	<0.002	<0.002	0.003	0.002	0.003	0.003	0.004	0.004	0.004	<0.002	<0.002
Copper	0.15	0.45	0.19	0.27	0.29	0.22	0.26	0.17	0.32	0.21	0.18	0.27	0.17	0.12	0.2	0.17	0.19	0.41	0.16	0.16	0.16	0.16	0.24
Iron	2.9	5.9	2.5	3.3	5.5	4.2	5.7	2.2	2	3.2	2.3	2.6	1.7	1.1	1.8	2.6	2.6	2.8	2.2	1.2	2.4	2.6	2.7
Lead	<0.002	<0.002	<0.002	0.007	0.004	0.008	0.004	0.002	<0.002	<0.002	<0.002	<0.002	<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	0.11	0.1	0.29	0.09	0.11	0.14	0.13	0.07	0.1	0.08	0.07	0.09	0.08	0.1	0.14	0.06	0.06	0.08	0.14	0.11	0.14	0.12
Mercury	0.063	0.059	0.12	0.061	0.086	0.093	0.078	0.095	0.17	0.064	0.08	0.065	0.069	0.22	0.06	0.06	0.06	0.06	0.089	0.092	0.060	0.072	0.063
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	0.02	<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
Selenium	1	0.41	0.24	0.38	0.45	0.45	0.4	0.44	0.18	0.77	0.63	0.54	0.35	0.24	0.43	0.55	0.32	0.46	0.45	0.39	0.62	0.41	0.46
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	0.1	0.09	0.14	1.1	0.2	0.28	0.41	0.38	0.08	0.12	0.13	0.08	0.16	0.07	0.16	0.32	0.1	0.15	0.11	0.08	0.09	0.10	0.10
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	0.02	0.01	0.01	0.02	0.02	0.03	0.02	<0.01	<0.01	0.01	<0.01	<0.01	<0.01	0.05	0.06	0.06	0.07	0.06	<0.01	<0.01	<0.01	<0.01	<0.01
Uranium	<0.001	<0.001	<0.001	0.003	0.002	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001	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	3.5	3.6	7.7	3.9	7.6	4.6	5.8	3.2	3.1	3.6	3.9	3.2	3.4	3.2	4.7	5	4.5	4.3	5.2	3.0	4.0	3.8	4.2
Physical Properties																							
Moisture (%)	77.36	76.23	77.69	79.62	80.94	81.17	82.01	79.00	74.45	74.87	75.99	77.04	72.64	78.76	74.54	74.78	77.17	76.73	77.77	80.55	78.37	76.14	78.60
Length (cm)	38.7	40.5	39.7	42.8	42	41	44.2	44	41.6	46.8	42	43.4	39	45.0	39.7	40.0	43.0	42.8	40.7	42.6	39.8	39.6	38.8
Weight (g)	700	920	1020	880	820	910	940	980	1020	1300	1040	1100	820	1240	1020	1060	1160	1300	1040	1100	1060	1060	940
Sex	M	M	M	F	F	M	M	M	F	F	F	M	F	F	M	F	F	F	F	M	M	M	F
Maturity	A	A	A	U	U	U	U	U	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
Age (years)	17	14	9	17	22	25	27	22	18	19	18	24	15	14	15	19	13	18	22	19	18	20	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
Polonium-210 (Bq/g)	0.0008	<0.0002	0.0002	0.0008	0.0004	0.0008	0.0005	0.0008	<0.0002	0.0009	0.0004	0.0014	<0.0002	<0.0002	0.0002	0.0004	<0.0002	0.0002	0.0004	<0.0002	<0.0002	0.0004	0.0004
Radium-226 (Bq/g)	<0.00006	<0.00006	<0.00006	<0.00005	<0.00006	<0.00005	<0.00006	<0.00006	<0.00005	<0.00007	<0.00006	<0.00006	<0.00006	<0.00008	<0.00006	<0.00005	<0.00007	<0.00006	<0.00006	<0.00005	<0.00005	<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	<0.0002	<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.

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

Appendix C, Table 8

Detailed blueberry chemistry results from the EARMP community program, 2011 to 2019.

Chemical ¹	Black Lake														
	2011					2012					2013				
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Metals															
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
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
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
Barium	12	15	13	11	15	13	14	17	15	15	11	12	14	14	7
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
Boron	6	5	5	3	5	6	8	5	5	7	8	4	7	5	13
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
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
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
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
Iron	8.4	11	8.6	11	10	20	10	8.1	8.8	9.8	10	6	8	8	5
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
Manganese	160	130	120	180	220	100	100	170	170	120	160	220	200	250	160
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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

Appendix C, Table 8

Detailed blueberry chemistry results from the EARMF community program, 2011 to 2019.

Chemical ¹	Black Lake										
	2014					2015			2016		
	1	2	3	4	5	1	2	3	1	2	3
Metals											
Aluminum	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
Arsenic	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Barium	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
Boron	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	<0.01
Chromium	<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	0.02	0.01	0.01	0.01	0.03	0.02	<0.01	0.02	0.02	0.01
Copper	3.7	3.6	4	3.6	4	3.5	3.4	3.4	2.7	3.6	2.6
Iron	31	21	18	18	17	51	22	10	11	16	12
Lead	0.03	0.03	0.02	0.02	<0.01	0.02	0.01	<0.01	0.13	0.02	<0.01
Manganese	220	200	89	98	83	300	390	200	150	139	182
Molybdenum	<0.1	<0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.3	0.2	0.2
Nickel	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	<0.05	<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
Strontium	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
Tin	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Titanium	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	0.03	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
Zinc	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 (%)	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)	<0.001	<0.001	<0.001	0.002	<0.001	0.003	0.001	0.002	<0.001	0.002	0.001
Polonium-210 (Bq/g)	0.0007	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	0.0008	0.001	0.001	0.002	0.0059	0.0066	0.0022	0.002	0.002	0.001
Thorium-230 (Bq/g)	<0.001	<0.001	<0.001	<0.001	<0.001	0.0009	<0.0005	<0.0005	<0.001	<0.001	<0.001

Appendix C, Table 8

Detailed blueberry chemistry results from the EARMP community program, 2011 to 2019.

Chemical ¹	Fond du Lac																			
	2011					2012					2013					2014				
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Metals																				
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
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
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
Barium	12	12	13	13	12	12	9.9	14	11	11	14	14	16	18	15	20	16	22	14	29
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
Boron	8	6	7	8	6	14	6	5	8	5	6	4	5	4	6	6	7	6	5	7
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
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
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
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
Iron	10	8.2	9.7	11	9.3	14	21	12	16	10	10	23	17	17	10	48	23	40	22	44
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
Manganese	140	150	140	140	130	280	460	240	370	310	460	410	660	700	460	400	380	400	390	390
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
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
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
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
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
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
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	<0.05	0.15	<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
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
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
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
Physical Properties																				
Moisture (%)	87.1	85.5	86.68	84.6	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
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
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
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
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

Appendix C, Table 8

Detailed blueberry chemistry results from the EARMP community program, 2011 to 2019.

Chemical ¹	Fond du Lac															
	2015			2016			2018					2019				
	1	2	3	1	2	3	1	2	3	4	5	1	2	3	4	5
Metals																
Aluminum	47	18	23	34	15	11	16	10	9.5	8.9	9	7.8	6.8	6	7.8	6
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	18	14	18	16	27	19	14	15	15	16	17	15	16	13	8.8	16
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	5	5	6	4	5	4	7	5	6	5	6	6	6	6	3	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
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	0.03	0.02	0.02	0.03	0.01	<0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.02	<0.01
Copper	3.9	3.8	3.1	4.6	4.2	3.7	2.8	2.3	2.4	2.3	2.4	2.6	2.4	2.4	3.2	2.3
Iron	54	18	22	30	20	14	11	10	10	10	9.8	9.2	8.9	7.9	11	7.2
Lead	0.04	0.01	0.03	0.03	0.02	0.02	0.03	0.02	0.06	0.03	0.02	0.02	<0.01	<0.01	<0.01	<0.01
Manganese	290	340	480	336	94	113	227	202	210	197	204	195	172	174	389	223
Molybdenum	0.3	0.3	0.2	0.4	1.4	1.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.4	0.1
Nickel	1.3	0.69	0.77	1.7	1.2	0.96	0.77	0.51	0.55	0.55	0.55	1	0.99	0.94	0.82	0.79
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	4.4	2.6	2.5	3.1	3.8	2.5	1.4	1.2	1.2	1.2	1.2	1.4	1.5	1.4	1.8	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
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	3.3	0.76	0.77	1.2	0.49	0.19	0.08	0.14	0.11	0.19	0.08	0.09	0.08	0.06	0.12	0.06
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
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	6.6	6.6	7.4	7.9	7.9	6.5	6.1	5.2	5.4	5.6	5.7	5.9	5.7	5.3	5.3	4.8
Physical Properties																
Moisture (%)	86.12	86.14	86.17	83.54	82.53	82.76	85.32	84.42	84.34	84.54	84.55	85	84.77	85.04	85.53	85.1
Radionuclides																
Lead-210 (Bq/g)	0.003	0.004	0.004	0.002	<0.001	<0.001	<0.001	<0.001	0.001	0.001	<0.001	0.003	0.004	0.01	0.004	<0.001
Polonium-210 (Bq/g)	0.001	0.0021	0.0032	0.0012	0.0007	0.0005	0.0018	0.0011	0.0011	0.0012	0.0017	0.0008	0.001	0.0008	0.0009	0.0008
Radium-226 (Bq/g)	0.0022	0.0031	0.0038	0.003	0.002	0.004	0.0046	0.0034	0.0032	0.0026	0.0052	0.0044	0.0051	0.0041	0.0026	0.0066
Thorium-230 (Bq/g)	0.002	<0.0005	<0.0005	<0.001	<0.001	<0.001	<0.0007	<0.0007	<0.0007	<0.0007	<0.0007	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005

Appendix C, Table 8

Detailed blueberry chemistry results from the EARMF community program, 2011 to 2019.

Chemical ¹	Stony Rapids														
	2011					2012					2013				
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Metals															
Aluminum	21	8	27	37	10	9.6	8.9	7	11	7.6	300	180	250	240	250
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
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
Barium	15	15	16	8.9	13	14	12	12	10	13	10	9	13	14	13
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
Boron	12	5	4	3	4	5	4	11	14	6	4	4	4	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
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
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
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
Iron	16	12	23	32	11	12	12	11	10	9.9	9.9	10	10	11	12
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
Manganese	140	100	130	70	180	290	250	230	240	260	210	200	270	340	300
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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

Appendix C, Table 8

Detailed blueberry chemistry results from the EARMP community program, 2011 to 2019.

Chemical ¹	Stony Rapids											
	2014					2015			2016			2019
	1	2	3	4	5	1	2	3	1	2	3	1
Metals												
Aluminum	7.8	9.3	10	8.3	8.9	22	18	9.5	13	16	18	6.8
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
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
Barium	22	21	21	18	21	13	15	15	14	15	15	17
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
Boron	4	5	5	5	16	5	5	7	12	5	5	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
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
Cobalt	0.01	0.02	0.1	<0.01	0.02	<0.01	<0.01	0.01	0.01	0.01	0.01	< 0.01
Copper	4.5	4.2	4.2	4	4.4	3.6	3.3	3.2	3	3.4	3.4	2.9
Iron	14	15	14	13	15	19	19	13	22	17	18	9.1
Lead	<0.01	0.01	<0.01	0.02	0.01	0.26	0.02	0.02	0.06	0.01	0.03	< 0.01
Manganese	130	150	140	270	140	130	150	220	229	337	357	226
Molybdenum	0.2	0.2	0.2	0.2	0.2	<0.1	<0.1	0.1	0.1	0.1	0.1	0.2
Nickel	1.1	1.1	1.4	0.54	1	0.68	0.65	0.8	0.68	0.57	0.57	0.58
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
Silver	<0.01	<0.01	<0.01	<0.01	<0.01	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	< 0.01
Strontium	2.5	2.5	2.2	5.3	2.6	1.6	1.7	3.1	3	1.7	1.8	1.6
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
Tin	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.07	<0.05	<0.05	<0.05	< 0.05
Titanium	0.12	0.3	0.17	0.08	0.26	0.7	0.81	0.28	0.29	0.37	0.47	0.07
Uranium	0.03	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
Zinc	5.2	5.2	5.5	6.1	5.3	5.2	5.4	5.6	5.5	6.7	6.6	6.4
Physical Properties												
Moisture (%)	86.37	86.04	86.10	86.52	86.16	86.67	86.62	86.11	85.76	83.59	83.88	84.52
Radionuclides												
Lead-210 (Bq/g)	0.001	0.001	<0.001	<0.001	<0.001	0.003	0.002	0.002	0.002	<0.001	0.002	0.004
Polonium-210 (Bq/g)	<0.0002	0.0008	0.0007	0.0008	0.0006	0.0012	0.0014	0.0012	0.0011	0.0009	0.001	0.0012
Radium-226 (Bq/g)	0.003	0.002	0.002	0.013	0.002	0.004	0.0039	0.0018	0.002	0.002	0.001	0.0016
Thorium-230 (Bq/g)	<0.0009	<0.001	<0.001	<0.001	<0.001	<0.0005	0.0007	<0.0005	<0.0009	<0.0009	<0.001	< 0.0007

Appendix C, Table 8

Detailed blueberry chemistry results from the EARMP community program, 2011 to 2019.

Chemical ¹	Wollaston Lake/Hatchet Lake														
	2011					2012					2013				
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Metals															
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
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
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
Barium	16	17	15	14	15	10	9.9	7.7	16	16	13	13	11	12	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
Boron	7	4	7	13	6	5	7	17	7	8	4	5	4	5	5
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
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
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
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
Iron	6.8	5.4	12	9.5	9	17	17	15	21	20	10	9	10	9	9
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
Manganese	270	290	300	290	260	150	160	110	180	190	150	140	150	140	150
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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

Appendix C, Table 8

Detailed blueberry chemistry results from the EARMP community program, 2011 to 2019.

Chemical ¹	Wollaston Lake/Hatchet Lake										
	2014					2015			2016		
	1	2	3	4	5	1	2	3	1	2	3
Metals											
Aluminum	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
Arsenic	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Barium	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
Boron	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
Chromium	<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	0.01	0.2	0.03	0.14	0.03	0.01	0.01	0.01	0.02	0.01
Copper	4.5	4.4	4.5	4.8	4.5	3.5	3.3	3.6	3.4	3.9	3.2
Iron	17	18	18	17	17	29	15	17	12	14	12
Lead	<0.01	0.02	0.02	<0.01	0.02	0.02	0.02	0.03	0.02	0.01	0.05
Manganese	100	81	90	84	59	160	170	180	88	317	118
Molybdenum	0.3	0.4	0.3	0.4	0.4	0.2	0.1	0.1	0.2	0.3	0.2
Nickel	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
Silver	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Strontium	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
Tin	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Titanium	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	0.03	<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
Zinc	7.3	8.1	7.3	7.5	7.4	6	6.8	7	5.8	5.3	5.8
Physical Properties											
Moisture (%)	86.34	86.99	86.93	87.01	86.51	88.00	84.22	84.43	85.72	86.66	86.27
Radionuclides											
Lead-210 (Bq/g)	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)	0.0006	0.001	0.0005	0.0008	0.0007	0.0016	0.001	0.0014	0.0018	0.0011	0.0015
Radium-226 (Bq/g)	0.004	0.002	0.004	0.005	0.004	0.006	0.0046	0.0045	0.002	<0.0005	0.003
Thorium-230 (Bq/g)	<0.001	<0.001	<0.001	<0.001	<0.0009	<0.0006	<0.0005	<0.0005	<0.0009	<0.001	<0.001

Appendix C, Table 8

Detailed blueberry chemistry results from the EARMF community program, 2011 to 2019.

Chemical ¹	Camsell Portage												
	2012					2013					2014		
	1	2	3	4	5	1	2	3	4	5	1	2	3
Metals													
Aluminum	7.2	7.3	7	7.4	6	6.8	7.7	6.7	7.1	7.2	10	13	8.6
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	12	24	20	22	20	11	13	12	12	13	22	24	20
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	5	8	8	8	6	4	4	4	4	4	5	6	5
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	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	<0.01
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
Iron	11	8.7	9.7	18	13	8	10	10	13	9	15	17	16
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
Manganese	280	490	490	480	580	350	390	360	380	360	430	470	370
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
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
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	1.4	1.4	1.4	1.6	1.5	0.9	1	1	1	1.1	1.9	1.8	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
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
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
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
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	13	6.5	8.9	8	5.9	6	6.7	5.6	8.4	6.2	7.6	7.8	6.9
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	84.90	83.77
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
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
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
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

Appendix C, Table 8

Detailed blueberry chemistry results from the EARMP community program, 2011 to 2019.

Chemical ¹	Uranium City												
	2012					2014			2018			2019	
	1	2	3	4	5	1	2	3	1	2	3	1	2
Metals													
Aluminum	5.3	5.6	8.7	4.4	5.4	9.2	7.7	11	4.6	4.2	4.8	7.7	6.3
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	12	11	12	12	9.9	14	14	14	11	11	11	12	11
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	8	8	9	6	7	3	4	3	6	5	5	5	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	0.02	<0.01	<0.01	0.06	0.01	0.01	0.02	0.02	0.02
Copper	3.9	3.4	3.7	3.5	2.9	4.1	4.1	4.1	3.3	3.4	3.3	3.5	3.1
Iron	11	9.7	10	12	8.7	14	14	14	9.4	9.2	9	12	9.7
Lead	0.01	0.01	0.02	0.01	<0.01	<0.01	0.06	0.01	<0.01	0.01	0.07	<0.01	<0.01
Manganese	280	330	280	200	140	430	440	450	530	460	550	680	640
Molybdenum	0.2	0.2	0.3	0.4	<0.1	0.2	0.2	0.2	0.3	0.4	0.3	0.2	0.3
Nickel	0.54	0.47	0.58	0.44	0.51	0.37	0.41	0.5	0.32	0.3	0.32	0.46	0.34
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	1.3	1.1	1.4	1.3	1.6	1.3	1.3	1.4	1.5	1.5	1.5	1.6	1.6
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	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Titanium	<0.05	<0.05	<0.05	0.05	0.05	0.17	0.13	0.21	<0.05	<0.05	<0.05	0.16	0.08
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
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	6.3	5.9	6.2	6.3	4.2	6.7	6.5	6.4	5.1	4.9	4.7	4.9	4.3
Physical Properties													
Moisture (%)	84.40	83.99	84.04	85.06	84.43	89.62	89.29	89.56	81.80	81.73	81.57	84.16	84.46
Radionuclides													
Lead-210 (Bq/g)	0.002	0.004	0.003	0.002	0.02	0.001	0.005	0.002	<0.001	<0.001	<0.001	0.002	0.002
Polonium-210 (Bq/g)	0.0021	0.005	0.0032	0.0015	0.002	0.0031	0.003	0.0028	0.001	0.0009	0.0008	0.0014	0.0016
Radium-226 (Bq/g)	0.0014	0.006	0.0016	0.1	0.001	0.0007	0.003	0.001	<0.0003	<0.0003	<0.0003	0.0005	<0.0002
Thorium-230 (Bq/g)	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.0007	<0.0007	<0.0007	<0.0005	<0.0005

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

Appendix C, Table 9

Detailed bog cranberry chemistry results from the EARMP community program, 2011 to 2019.

Chemical ¹	Camsell Portage															
	2011					2014		2015			2016			2018		
	1	2	3	4	5	1	2	1	2	3	1	2	3	1	2	3
Metals																
Aluminum	17	17	19	19	16	17	16	16	19	21	22	21	22	20	25	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	<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	14	13	14	15	9.1	15	15	18	19	19	7.6	8.5	8.6	8.1	9	8.2
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	9	8	8	10	9	6	5	10	6	6	6	7	6	9	8	9
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	0.02	<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	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.02	0.01	<0.01	<0.01	<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	3.3	3.5	3.2
Iron	9.7	9.7	10	10	11	15	14	16	12	13	9.3	8.8	9	9	9.6	8.7
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	0.04	0.01	0.01
Manganese	110	120	100	100	80	170	170	140	200	220	171	124	155	116	126	127
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	<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	0.36	0.34	0.31
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	2.3	2	2.1	2.5	1.8	2.3	2.3	3.1	3.8	4.5	1	1.2	1.1	1.5	1.7	1.5
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
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	<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	0.07	0.11	0.08
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	<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	6.6	6.4	6.5	6.7	5.3	6.2	6.2	7.8	7.8	8	7.2	7	6.9	6.5	7.2	6.5
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	84.77	84.84	84.79
Radionuclides																
Lead-210 (Bq/g)	0.007	0.006	0.02	0.013	0.018	0.001	<0.001	0.002	0.002	0.002	0.002	0.004	0.003	0.001	0.001	0.002
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	0.0024	0.0021	0.0019
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	0.0014	0.0016	0.0009
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	<0.0007	<0.0007	<0.0007

Appendix C, Table 9

Detailed bog cranberry chemistry results from the EARMP community program, 2011 to 2019.

Chemical ¹	Black Lake		Fond du Lac			Stony Rapids							Wollaston Lake					
	2019		2018			2018			2019				2018		2019			
	1	2	1	2	3	1	2	3	1	2	3	4	1	2	1	2	3	4
Metals																		
Aluminum	110	33	25	25	25	87	90	97	110	51	49	56	84	28	35	36	32	33
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
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
Barium	11	14	9.7	10	9.7	16	16	16	10	10	8.7	12	16	10	12	11	12	11
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
Boron	8	8	10	11	5	16	14	9	7	5	6	7	8	9	6	5	6	6
Cadmium	<0.01	0.03	<0.01	<0.01	<0.01	0.03	0.04	0.03	<0.01	<0.01	<0.01	<0.01	0.06	0.03	0.02	0.02	0.04	0.03
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
Cobalt	0.02	0.01	0.02	0.02	0.02	0.02	0.02	0.03	0.03	0.02	0.01	0.01	0.02	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	3.5	3.6	2.9	2.9	2.9	3	3.2	3.2	3.2	2.9	2.9	2.8	3.9	2.8	3.8	3.1	4	3.9
Iron	68	15	12	13	13	45	45	47	67	29	31	32	44	10	14	15	14	16
Lead	0.04	0.03	<0.01	0.01	0.03	0.09	0.13	0.13	0.04	0.03	0.02	0.02	0.06	0.02	<0.01	0.02	0.04	0.01
Manganese	192	148	157	164	157	133	129	127	164	192	163	174	139	114	83	138	132	101
Molybdenum	0.5	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	0.1	0.4	0.1	0.2	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	0.47	0.36	0.23	0.22	0.23	0.46	0.48	0.65	0.49	0.38	0.28	0.31	0.68	0.32	0.7	0.4	0.72	0.9
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
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
Strontium	1.5	2.7	1.8	1.8	1.9	3.9	3.7	3.2	1.6	2	1.2	1.4	2.6	2.1	2.4	1.9	2	2.4
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
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	0.06	<0.05
Titanium	4.4	0.49	0.38	0.36	0.37	2.2	2.4	2.9	4.1	1.5	1.7	1.9	2.6	0.41	0.52	0.71	0.55	0.56
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	<0.01
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
Zinc	6.7	5.8	6.7	6.9	7.2	7.2	7	6.8	6.6	7.4	6.3	6.1	11	5.9	6	5.1	6.4	5.8
Physical Properties																		
Moisture (%)	87.22	84.62	84.40	84.42	84.37	86.12	86.09	85.23	85.39	86.37	85.83	86.01	85.36	84.56	84.84	85.00	84.51	85.14
Radionuclides																		
Lead-210 (Bq/g)	0.007	0.004	0.001	0.001	0.001	<0.001	0.004	0.005	0.004	0.003	85.83	0.004	0.004	0.003	0.003	0.004	0.002	0.002
Polonium-210 (Bq/g)	0.002	0.0039	0.0015	0.0008	0.0013	0.0015	0.0035	0.0049	0.0022	0.0018	0.003	0.0028	0.0034	0.0023	0.002	0.0039	0.0012	0.0022
Radium-226 (Bq/g)	0.0078	0.0046	0.0013	0.0009	0.001	0.0019	0.0017	0.0014	0.01	0.0031	0.0028	0.0067	0.0021	0.0031	0.0013	0.0014	0.0017	0.0026
Thorium-230 (Bq/g)	<0.0005	<0.0005	<0.0007	<0.0007	<0.0007	<0.0007	<0.0007	<0.0007	<0.0005	<0.0007	0.0064	<0.0005	<0.0007	<0.0007	<0.0005	<0.0005	<0.0005	<0.0007

Appendix C, Table 9

Detailed bog cranberry chemistry results from the EARMP community program, 2011 to 2019.

Chemical ¹	Uranium City																
	2011					2013					2014		2015	2016			2019
	1	2	3	4	5	1	2	3	4	5	1	2	1	1	2	3	1
Metals																	
Aluminum	20	29	15	19	27	21	56	50	45	28	22	23	20	18	25	17	9.9
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
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
Barium	13	9.1	11	9.4	13	10	12	14	12	10	13	12	15	11	10	10	11
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
Boron	10	9	8	14	10	18	16	15	7	5	6	6	9	6	4	7	6
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	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
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	<0.01
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	2.7
Iron	16	20	9.5	13	14	13	12	26	26	14	12	14	12	11	14	10	7.3
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	<0.01
Manganese	150	110	300	210	220	210	150	100	81	100	160	160	90	158	103	120	200
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	<0.1
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	0.21
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
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
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	2.1
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	<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
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	0.06
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	<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
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	4.5
Physical Properties																	
Moisture (%)	88.39	87.69	87.22	86.90	87.44	84.89	85.40	85.63	85.57	85.84	86.38	86.63	85.92	85.20	86.48	84.88	84.02
Radionuclides																	
Lead-210 (Bq/g)	0.005	0.005	0.016	0.01	0.016	0.016	0.009	<0.004	<0.004	<0.004	0.005	0.002	0.003	0.005	0.002	0.003	0.004
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	0.0012
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	0.0013
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	<0.0007

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

Appendix C, Table 10

Detailed barren-ground caribou flesh chemistry results from the EARMP community program, 2012 to 2020.

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																						
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	3	3.3	3.3	4.2	3.4	3	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
Mercury	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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	75.50	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

Appendix C, Table 10

Detailed barren-ground caribou flesh chemistry results from the EARMP community program, 2012 to 2020.

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																					
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
Mercury	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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	72.90	73.46	71.99	68.45	62.73	71.46	75.61	72.28	70.81	73.17	73.00	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

Appendix C, Table 10

Detailed barren-ground caribou flesh chemistry results from the EARMP community program, 2012 to 2020.

Chemical ¹	Camsell Portage		Stony Rapids												Uranium City			
	2013		2013					2014			2015				2019			
	1	2	1	2	3	4	5	1	2	3	1	2	3	4	5	1	2	3
Metals																		
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	<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
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	<0.01	<0.01	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	0.05	0.1	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	0.8	<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	0.003	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	0.003	0.008	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	<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	0.004	0.004	0.005
Copper	3.7	3.7	4	4.6	4.7	3.3	4.1	2.4	3.4	1.8	2.4	4.3	3.6	3.8	3.5	1.7	1.3	2.4
Iron	50	46	52	55	46	51	55	38	38	40	34	43	46	47	50	37	32	36
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	<0.002	0.004	<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	0.21	0.17	0.32
Mercury	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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	0.18	<0.01	0.06	<0.01	<0.01	<0.01	<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	0.13	0.11	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
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	0.04	0.06	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
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	0.08	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	<0.01	<0.01	0.01
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	<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	26	25	22	13	16	29	15	40	17	48	41	15	15	18	20	53	29	59
Physical Properties																		
Moisture (%)	72.15	72.11	70.86	70.20	70.00	70.40	71.00	74.41	74.78	67.52	73.27	73.71	72.62	72.05	71.78	75.66	66.73	75.99
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	<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	0.0055	0.0059	0.0048
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	<0.0002	<0.0002	<0.0002
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	<0.0005	<0.0005	<0.0005

Appendix C, Table 10

Detailed barren-ground caribou flesh chemistry results from the EARMP community program, 2012 to 2020.

Chemical ¹	Wollaston Lake/Hatchet Lake																								
	2012					2013					2014					2015				2017		2020			
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	1	2	1	2	3	4
Metals																									
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	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<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	0.03	<0.02	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	25
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	0.02	0.01	<0.01	0.34
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	0.09	0.05	0.11	0.16
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	0.4	<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	<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	0.003	0.005	0.004	0.005
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	<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	<0.002	0.005	0.006	0.005
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	1.7	3.3	1.8	3
Iron	37	35	26	45	29	63	36	43	52	43	42	43	23	44	45	42	36	27	52	45	38	24	46	33	64
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	0.15	0.003	2.1	910
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	0.24	0.42	0.21	0.37
Mercury	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.008	0.012	0.006	0.006
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	<0.01	<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	<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	0.12	0.26	0.13	0.17
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	0.048
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	0.07	0.03	0.06	0.05
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	0.36
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
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	0.04	0.03	0.03	0.04
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	<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
Zinc	33	30	30	20	29	16	52	42	20	16	16	20	18	13	23	33	29	23	19	43	38	56	42	64	45
Physical Properties																									
Moisture (%)	74.50	73.60	75.20	74.14	75.20	72.82	78.45	77.45	73.98	72.58	75.58	74.52	75.00	74.43	73.43	76.77	73.74	74.44	68.86	74.15	74.87	76.29	71.75	74.47	73.57
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	0.002	<0.001	<0.001	0.002
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	0.0084	0.0093	0.0094	0.012
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	<0.00007	<0.00007	<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	<0.0001	<0.0001	<0.0001	<0.0001

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

- = data not available.

Appendix C, Table 11

Detailed moose flesh chemistry results from the EARMP community program, 2011 to 2020.

Chemical ¹	Camsell Portage										Fond du Lac	Stony Rapids				
	2011				2013		2014		2015		2016	2016	2018	2020		
	1	2	3	4	1	2	1	2	1	2	1	1	1	1	2	3
Metals																
Aluminum	1.5	3	<0.5	3.8	<0.5	<0.5	0.6	4.4	5.1	0.5	0.6	0.5	<0.5	0.6	1	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
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
Barium	0.04	0.15	0.03	0.02	0.05	0.02	0.07	0.04	0.05	0.02	0.05	0.06	0.02	0.04	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
Boron	0.3	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0.3	0.3	0.3	<0.2
Cadmium	<0.002	0.006	0.002	<0.002	0.002	0.003	0.003	0.05	0.005	0.004	0.002	0.002	<0.002	0.011	0.012	<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	0.014	0.011	0.022	0.01	0.012	0.015	0.02	0.016	0.015	0.006	0.011	0.019	0.012	0.03	0.014	0.01
Copper	2	1.2	1.8	1.6	1.5	1.8	0.56	1.4	0.93	1.4	1.5	1.7	0.82	0.99	1.4	0.73
Iron	21	25	25	29	29	34	22	32	29	29	38	29	12	45	46	20
Lead	0.018	0.019	<0.002	0.002	0.004	<0.002	0.029	0.011	0.004	<0.002	0.01	0.01	<0.002	0.027	0.009	0.009
Manganese	0.2	0.18	0.21	0.13	0.13	0.16	0.38	0.27	0.2	0.18	0.22	0.24	0.15	0.26	0.3	0.18
Mercury	-	-	-	-	-	-	-	-	-	-	-	-	-	0.002	0.003	0.003
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	0.02	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.02	<0.01	<0.01	0.02	<0.01	<0.01	<0.01	<0.01
Selenium	0.2	0.06	0.1	0.12	0.06	0.06	0.08	0.08	0.17	0.13	0.1	0.09	0.16	0.15	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	0.003	<0.002	<0.002
Strontium	0.1	0.06	0.03	0.02	0.06	0.04	0.06	0.09	0.06	0.02	0.06	0.03	0.03	0.16	0.15	0.08
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	<0.01	<0.01	<0.01	<0.01	<0.01
Titanium	0.09	0.25	0.09	0.08	0.07	0.07	0.1	0.22	0.14	<0.01	0.05	0.06	0.02	0.06	0.07	0.07
Uranium	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.002	0.002	<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
Zinc	24	38	47	45	59	45	63	58	61	48	53	49	32	50	62	50
Physical Properties																
Moisture (%)	75.01	73.92	75.02	75.12	73.27	72.65	73.14	70.99	73.20	74.63	75.66	73.90	74.12	70.99	67.02	73.25
Radionuclides																
Lead-210 (Bq/g)	<0.001	<0.001	<0.001	<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)	0.0019	0.0004	0.0003	-	0.0004	0.0002	0.0004	<0.0002	0.0011	0.0005	0.0003	0.0006	0.0006	0.001	0.0008	0.001
Radium-226 (Bq/g)	<0.00008	<0.00007	0.0002	<0.00006	0.00006	0.00007	<0.00006	<0.00006	0.00005	0.00008	<0.00005	<0.00007	<0.00007	<0.00005	0.0001	<0.00006
Thorium-230 (Bq/g)	<0.0002	<0.0001	<0.0001	-	<0.0001	<0.0001	<0.0001	<0.0001	<0.00009	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	-	<0.0002

Appendix C, Table 11

Detailed moose flesh chemistry results from the EARMP community program, 2011 to 2020.

Chemical ¹	Uranium City																	
	2011				2012			2013			2014	2015	2016	2018		2020		
	Mackintosh Bay	Deadman Channel	Melville Lake	Orbit Bay	Ace Creek	Gunnar	Milliken Lake	1	2	3	1	1	1	1	2	1	2	
Metals																		
Aluminum	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	<0.5	<0.5	<0.5	0.9	
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	
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	
Barium	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	0.03	0.04	0.02	0.1	
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	
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	
Cadmium	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	0.004	0.004	0.011	0.01	
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	
Cobalt	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	0.01	0.011	0.027	0.005	
Copper	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	1.4	0.95	1.6	1.2	
Iron	30	25	42	42	35	34	26	34	37	26	36	33	25	37	22	35	35	
Lead	<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	<0.002	0.006	<0.002	0.006	
Manganese	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	0.19	0.2	0.19	0.16	
Mercury	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.003	0.002
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	
Nickel	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	<0.01	<0.01	<0.01	<0.01	
Selenium	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	0.14	0.13	0.13	0.09	
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	
Strontium	<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	0.04	0.02	0.02	0.06	
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	
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	0.14	0.08	0.1	0.13	0.08	0.08	0.06	0.06	0.06	0.06	0.09	0.01	0.11	0.02	0.03	0.04	0.11	
Uranium	<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	
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	
Zinc	50	49	31	49	75	56	55	44	48	56	52	52	35	48	42	59	42	
Physical Properties																		
Moisture (%)	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	75.89	76.73	74.72	78.09	
Radionuclides																		
Lead-210 (Bq/g)	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	<0.001	
Polonium-210 (Bq/g)	<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	0.0004	0.0002	0.0003	0.0005	
Radium-226 (Bq/g)	<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	<0.00006	<0.00007	<0.00006	<0.00006	
Thorium-230 (Bq/g)	<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	<0.0001	<0.0005	<0.0001	<0.0001	

Appendix C, Table 11

Detailed moose flesh chemistry results from the EARMP community program, 2011 to 2020.

Chemical ¹	Wollaston Lake/Hatchet Lake	
	2020	
	1	2
Metals		
Aluminum	<0.5	<0.5
Antimony	<0.02	<0.02
Arsenic	<0.01	0.01
Barium	0.07	0.07
Beryllium	<0.002	<0.002
Boron	<0.2	<0.2
Cadmium	0.006	0.004
Chromium	0.2	0.2
Cobalt	0.006	<0.002
Copper	1.9	2
Iron	40	35
Lead	0.29	0.02
Manganese	0.2	0.26
Mercury	0.034	0.016
Molybdenum	<0.02	<0.02
Nickel	<0.01	<0.01
Selenium	0.18	0.15
Silver	<0.002	<0.002
Strontium	0.05	0.05
Thallium	<0.01	<0.01
Tin	<0.01	<0.01
Titanium	0.05	0.04
Uranium	<0.001	<0.001
Vanadium	<0.02	<0.02
Zinc	50	49
Physical Properties		
Moisture (%)	74.93	73.61
Radionuclides		
Lead-210 (Bq/g)	<0.001	0.002
Polonium-210 (Bq/g)	0.003	0.0034
Radium-226 (Bq/g)	<0.0001	<0.0001
Thorium-230 (Bq/g)	<0.0002	<0.0002

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

- = data not available.

Appendix C, Table 12

Detailed barren-ground caribou and moose organ chemistry results from the EARMP community program, 2014 to 2020.

Chemical ¹	Black Lake			Camsell Portage						Fond du Lac							
	Barren-ground Caribou			Moose						Barren-ground Caribou							
	Kidney		Heart	Liver			Kidney			Kidney			Heart	Liver			
	2016	2018	2018	2014		2015	2014		2015		2014		2015		2018	2018	
	1	1	1	1	2	1	1	2	1	2	1	2	3	1	2	1	1
Metals																	
Aluminum	<0.5	0.6	<0.5	<0.5	1.1	0.6	<0.5	1.2	<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
Arsenic	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
Barium	0.2	1	0.11	0.1	0.12	0.11	0.23	0.44	0.12	0.13	0.58	0.45	0.41	0.43	0.43	0.06	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	<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
Cadmium	6.9	4.7	0.004	1.7	1.1	0.66	8.6	6.5	6.8	4.9	6.2	9.6	6.8	10	7.3	0.002	0.004
Chromium	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.1	<0.1	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1
Cobalt	0.035	0.062	0.014	0.25	0.2	0.18	0.12	0.2	0.18	0.058	0.029	0.044	0.046	0.036	0.025	0.02	0.013
Copper	5	3.5	4.5	38	47	15	2.1	3.8	3.8	2.6	3.6	4.9	4.3	4.4	3.6	4.5	3.3
Iron	37	24	55	100	150	160	70	90	52	30	40	60	60	28	40	59	37
Lead	0.07	0.041	0.005	<0.002	0.003	0.003	<0.002	0.002	<0.002	0.004	0.073	0.068	0.078	0.12	0.089	0.01	0.003
Manganese	1.8	1.4	0.55	1.3	2.2	2.1	1.2	2	2.7	1.5	1.8	2	1.8	1.7	1.5	0.52	0.33
Mercury	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Molybdenum	0.15	0.21	<0.02	0.9	1	1.1	0.21	0.42	0.45	0.25	0.12	0.11	0.14	0.16	0.12	<0.02	<0.02
Nickel	<0.01	0.03	<0.01	<0.01	<0.01	<0.01	0.05	0.06	0.03	0.04	<0.01	0.01	0.01	<0.01	<0.01	0.01	0.02
Selenium	1	0.94	0.27	0.22	0.21	0.92	0.71	0.78	1.2	0.78	1.3	1.6	1.4	1.2	1.1	0.26	0.18
Silver	<0.002	<0.002	<0.002	0.009	0.014	0.033	<0.002	<0.002	<0.002	<0.002	0.003	0.003	<0.002	<0.002	<0.002	<0.002	<0.002
Strontium	0.1	0.11	0.05	0.06	0.07	0.05	0.17	0.13	0.11	0.09	0.18	0.18	0.16	0.11	0.12	0.04	0.06
Thallium	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.02	<0.01	<0.01	<0.01	0.02	<0.01	0.03	0.01	0.02	<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	0.02	0.08	<0.01	<0.5	<0.5	0.03	0.03	0.08	<0.01	<0.01	0.06	0.08	0.07	0.05	0.04	<0.01	0.01
Uranium	<0.001	<0.001	<0.001	<0.01	<0.01	<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
Zinc	24	24	19	15	20	20	16	23	26	20	23	28	27	26	25	20	37
Physical Properties																	
Moisture (%)	69.25	76.39	75.00	74.05	70.38	68.14	76.94	78.33	78.43	82.17	48.56	66.49	42.82	54.43	54.00	74.89	71.08
Radionuclides																	
Lead-210 (Bq/g)	0.049	0.023	<0.001	<0.001	<0.001	0.001	<0.001	<0.001	0.002	0.002	0.072	0.054	0.042	0.077	0.073	<0.001	<0.001
Polonium-210 (Bq/g)	0.064	0.076	0.012	0.0036	0.0024	0.026	0.0018	0.0023	0.027	0.0076	0.088	0.081	0.086	0.083	0.066	0.0092	0.0088
Radium-226 (Bq/g)	0.0005	<0.0001	<0.00006	0.0001	<0.0001	0.0002	<0.00006	0.0005	0.0001	0.0003	0.0003	0.0009	0.0005	0.0003	0.0003	<0.00007	<0.00006
Thorium-230 (Bq/g)	<0.0003	<0.0002	<0.0001	<0.0001	<0.0002	<0.0002	<0.0001	<0.0004	<0.0001	<0.0001	<0.0003	<0.0006	<0.0005	0.0005	<0.0003	<0.0001	<0.0001

Appendix C, Table 12

Detailed barren-ground caribou and moose organ chemistry results from the EARMP community program, 2014 to 2020.

Chemical ¹	Stony Rapids				Uranium City											
	Moose				Moose						Barren-ground Caribou					
	Kidney		Heart		Liver			Kidney			Heart			Liver		
	2017	2020	2020		2014	2015	2017	2014	2015	2017	2019			2019		
	1	1	1	2	1	1	1	1	1	1	1	2	3	1	2	3
Metals																
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
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	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	<0.01	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.02
Barium	0.14	0.08	0.07	0.04	0.1	0.48	0.14	0.27	0.16	0.26	0.08	0.1	0.04	0.18	0.24	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
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	0.73	1.1	0.009	0.003	0.48	0.054	1.4	8	20	8.6	0.004	<0.002	0.002	1.3	0.96	1.3
Chromium	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Cobalt	0.29	0.19	0.13	0.1	0.054	0.068	0.078	0.097	0.25	0.11	0.008	0.012	0.012	0.06	0.07	0.052
Copper	13.2	3.7	3.6	4	28	0.55	28.1	3	2.2	2.9	4.4	4.5	4.7	38.8	24	26.6
Iron	200	42	50	63	120	680	140	41	33	31	56	79	52	380	200	150
Lead	0.004	<0.002	0.016	<0.002	0.008	<0.002	0.018	0.002	<0.002	0.012	<0.002	0.003	<0.002	0.074	0.067	0.072
Manganese	4.1	3.6	0.45	0.52	1.4	0.09	2.4	1	0.8	1.2	0.53	0.64	0.57	2.5	2.9	3.3
Mercury	-	0.08	0.002	0.002	-	-	-	-	-	-	-	-	-	-	-	-
Molybdenum	1.1	0.44	0.02	0.02	0.65	<0.02	0.81	0.24	0.17	0.2	<0.02	<0.02	<0.02	0.31	0.38	0.43
Nickel	0.02	0.04	<0.01	<0.01	<0.01	<0.01	<0.01	0.04	0.02	0.08	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Selenium	0.24	0.93	0.17	0.24	0.2	0.18	0.53	0.67	0.53	0.88	0.23	0.26	0.26	0.34	0.26	0.31
Silver	0.014	<0.002	<0.002	<0.002	0.01	<0.002	0.01	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.34	0.18	0.17
Strontium	0.08	0.15	0.14	0.06	0.1	0.06	0.04	0.11	0.1	0.08	0.05	0.05	0.04	0.07	0.07	0.06
Thallium	<0.01	0.09	<0.01	<0.01	<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	0.02	0.04	0.04	0.05	<0.5	<0.01	0.02	0.04	<0.01	0.02	0.02	<0.01	<0.01	0.03	0.03	0.03
Uranium	<0.001	<0.001	0.004	<0.001	<0.01	<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
Zinc	27	21	22	24	14	15	23	25	24	23	18	19	18	31	18	24
Physical Properties																
Moisture (%)	68.77	78.39	75.94	77.01	58.58	72.88	61.03	78.25	83.14	82.38	76.88	77.14	76.74	70.63	72.87	72.64
Radionuclides																
Lead-210 (Bq/g)	0.001	<0.007	<0.001	<0.001	0.001	0.002	<0.001	0.001	0.002	<0.001	<0.002	<0.002	<0.002	0.082	0.086	0.085
Polonium-210 (Bq/g)	0.0042	0.018	0.0008	0.0015	0.0021	0.0018	0.0057	0.0032	0.0037	0.0063	0.012	0.014	0.011	0.22	0.16	0.15
Radium-226 (Bq/g)	<0.00008	<0.00008	<0.00006	<0.00005	0.00007	0.0003	0.0001	<0.00006	0.00007	0.0003	<0.0005	<0.0005	<0.0005	<0.001	<0.001	<0.001
Thorium-230 (Bq/g)	<0.0002	<0.0005	<0.0004	-	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.002

Appendix C, Table 12

Detailed barren-ground caribou and moose organ chemistry results from the EARMP community program, 2014 to 2020.

Chemical ¹	Wollaston Lake/Hatchet Lake					
	Barren-ground Caribou					
	Liver					Heart
	2015	2018		2020		2020
	1	1	2	1	2	1
Metals						
Aluminum	0.7	0.5	<0.5	0.6	<0.5	<0.5
Antimony	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Arsenic	0.02	0.02	0.01	0.01	<0.01	<0.01
Barium	0.02	0.36	0.27	0.2	0.15	0.11
Beryllium	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Boron	<0.2	0.7	<0.2	<0.2	<0.2	<0.2
Cadmium	0.65	1.8	1.6	1.9	2.2	0.005
Chromium	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Cobalt	0.075	0.1	0.071	0.06	0.069	0.017
Copper	26	54.6	31.7	27	33.6	4.1
Iron	140	190	170	300	170	69
Lead	0.097	0.076	0.055	0.15	0.11	0.31
Manganese	3.6	3.3	3.8	2.7	3.6	0.59
Mercury	-	-	-	0.25	0.26	0.004
Molybdenum	1	0.74	0.57	0.77	0.7	<0.02
Nickel	<0.01	0.02	<0.01	0.01	<0.01	<0.01
Selenium	0.4	0.4	0.4	0.41	0.33	0.27
Silver	0.12	0.19	0.097	0.16	0.21	<0.002
Strontium	0.04	0.07	0.05	0.07	0.05	0.05
Thallium	<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
Titanium	<0.5	0.08	0.03	0.11	0.06	0.04
Uranium	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001
Vanadium	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Zinc	24	36	41	29	33	20
Physical Properties						
Moisture (%)	71.23	70.73	71.4	66.6	67.42	73.60
Radionuclides						
Lead-210 (Bq/g)	<0.001	0.056	0.04	0.12	0.10	<0.001
Polonium-210 (Bq/g)	0.0093	0.24	0.18	0.34	0.33	0.015
Radium-226 (Bq/g)	0.0002	<0.00007	<0.00007	0.00006	0.00006	<0.0001
Thorium-230 (Bq/g)	<0.0001	<0.0005	<0.0001	<0.0001	<0.0001	<0.0002

¹All concentrations are presented on a µg/g wet weight basis, unless specified otherwise.
 RDL for chromium decreased from 0.5 µg/g to 0.1 µg/g between 2014 and 2015.
 - = data not available.

Appendix C, Table 13

Detailed snowshoe hare flesh chemistry results from the EARMP community program, 2011 to 2021.

Chemical ¹	Black Lake					Camsell Portage					Fond du Lac								
	2017				2021	2011					2014			2017			2021 ²		
	1	2	3	4	1	1	2	3	4	5	1	2	3	1	2	3	1	2	3
Metals																			
Aluminum	0.9	<0.5	<0.5	1.4	<0.5	0.6	<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
Arsenic	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
Barium	<0.01	<0.01	<0.01	<0.01	0.02	0.09	0.04	0.08	0.03	0.08	0.18	0.1	0.12	0.01	<0.01	<0.01	0.02	0.03	0.08
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
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	0.4	<0.2
Cadmium	0.038	0.004	0.002	0.005	0.015	0.003	0.004	0.01	<0.002	0.002	<0.002	0.004	0.006	0.008	0.009	0.003	<0.002	<0.002	<0.002
Chromium	0.2	<0.1	0.1	0.2	<0.1	0.003	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.6	0.2	0.1	<0.1	<0.1	<0.1
Cobalt	0.011	0.011	0.013	0.007	0.005	0.003	0.006	0.007	0.003	0.004	<0.002	0.005	0.032	0.021	0.014	0.019	0.013	0.01	0.007
Copper	2.2	4	1.8	1.9	2.1	0.003	2.4	1.5	1.8	1.5	1.9	2.1	1.8	1.4	2	2.6	2.4	2.8	1.8
Iron	44	38	30	31	30	0.003	28	24	22	24	19	25	20	36	35	38	26	33	29
Lead	0.005	0.003	0.003	0.004	2.4	0.003	<0.002	0.006	<0.002	<0.002	0.003	0.002	0.002	0.004	0.003	0.002	<0.002	<0.002	<0.002
Manganese	1.7	0.91	0.21	0.54	0.38	0.003	0.46	0.32	0.22	0.22	0.36	0.28	0.39	0.46	0.64	0.44	0.19	0.51	1.2
Mercury	0.007	0.002	0.002	0.002	0.002	-	-	-	-	-	-	-	-	0.002	<0.001	0.001	<0.001	0.001	0.002
Molybdenum	<0.02	<0.02	<0.02	<0.02	<0.02	0.003	<0.02	<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	0.06	<0.01	0.06	0.06	<0.01	0.003	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	0.07	0.07	0.08	0.05	<0.01	<0.01	<0.01
Selenium	0.44	0.28	0.23	0.34	0.17	0.003	0.03	0.13	0.02	0.06	0.03	0.08	0.14	0.3	0.19	0.16	0.07	0.11	0.03
Silver	<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	0.08	0.07	0.07	0.1	0.03	0.003	0.07	0.22	0.05	0.09	0.2	0.1	0.29	0.11	0.06	0.08	0.06	0.13	0.18
Thallium	<0.01	<0.01	<0.01	<0.01	<0.01	0.003	<0.01	<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	0.003	<0.01	0.04	0.02	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Titanium	0.08	0.1	0.08	0.08	<0.01	0.003	0.07	0.05	0.08	0.04	0.09	0.06	0.09	0.07	0.05	0.01	0.01	<0.01	<0.01
Uranium	<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
Vanadium	<0.02	<0.02	<0.02	<0.02	<0.02	0.003	<0.02	<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	19	13	22	17	15	0.003	11	23	13	13	13	11	16	23	16	21	13	19	16
Physical Properties																			
Moisture (%)	75.64	76.72	77.46	78.30	75.64	77.61	76.53	75.79	77.60	78.45	71.24	75.39	73.89	74.03	75.58	77.68	74.73	74.00	75.14
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	0.003	0.001	<0.001	<0.001	<0.001	<0.001
Polonium-210 (Bq/g)	0.001	0.0009	0.0011	0.0007	0.0009	0.0011	0.0018	0.0021	0.0013	0.0012	0.0017	0.002	0.0018	0.0006	0.0012	0.0008	0.0006	0.0007	0.0013
Radium-226 (Bq/g)	<0.0002	<0.0002	0.0003	<0.0002	<0.00005	0.0001	<0.00007	0.0001	0.0001	0.0002	0.0001	<0.00006	0.0001	<0.0002	<0.0002	<0.0002	<0.00005	<0.00007	<0.00006
Thorium-230 (Bq/g)	<0.0005	<0.0005	<0.0005	<0.0005	-	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	-	<0.0001	<0.0001

Appendix C, Table 13

Detailed snowshoe hare flesh chemistry results from the EARMP community program, 2011 to 2021.

Chemical ¹	Stony Rapids						Uranium City									Wollaston Lake						
	2017			2021 ²			2011			2014			2021 ²			2017			2021 ²			
	1	2	3	1	2	3	1	2	3	4	5	1	2	1	2	3	1	2	3	1	2	3
Metals																						
Aluminum	1.6	<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	0.6	<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	<0.01	<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
Barium	<0.01	<0.01	<0.01	0.02	0.02	0.02	0.27	0.05	0.09	0.04	0.05	0.13	0.28	0.05	0.1	0.08	<0.01	<0.01	<0.01	0.04	0.03	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
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	0.14	0.014	0.008	0.005	0.004	0.005	0.004	<0.002	0.003	0.003	<0.002	<0.002	0.005	0.003	<0.002	0.016	0.009	0.014	0.012	0.013	<0.002	0.009
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	0.013	0.005	0.022	0.004	0.003	0.004	0.007	0.005	0.004	0.004	0.006	0.005	0.004	0.006	0.004	0.005	0.006	0.009	0.01	0.003	0.004	0.003
Copper	1.8	1.8	1.1	2.5	1.8	1.8	1.5	1.5	1	1.4	1.1	2.4	2.1	1.2	1.6	3	1.8	2.1	2.5	2.2	3	2.5
Iron	57	36	25	32	30	21	27	22	22	14	20	21	31	18	29	31	24	36	31	30	25	30
Lead	0.008	0.005	<0.002	<0.002	<0.002	<0.002	<0.002	0.003	<0.002	<0.002	0.003	0.002	<0.002	<0.002	<0.002	0.002	0.007	0.009	<0.002	0.002	0.003	0.035
Manganese	0.42	0.25	0.21	0.31	0.19	0.18	0.27	0.2	0.37	0.29	0.18	0.24	1.1	0.15	0.13	0.57	0.26	0.57	0.33	0.4	0.6	0.49
Mercury	0.004	0.001	0.002	0.001	<0.001	<0.001	-	-	-	-	-	-	-	<0.001	<0.001	<0.001	0.002	<0.001	0.002	<0.001	0.002	0.002
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	0.04	<0.01	0.03	<0.01	<0.01	<0.01	0.01	0.02	<0.01	<0.01	<0.01	0.02	0.05	0.01	<0.01	<0.01	0.03	<0.01	0.04	<0.01	<0.01	<0.01
Selenium	0.14	0.21	0.22	0.2	0.13	0.1	0.13	0.05	0.1	0.12	0.06	0.15	0.07	0.2	0.16	0.11	0.15	0.14	0.13	0.06	0.04	0.07
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	0.07	0.06	0.06	0.05	0.08	0.07	0.39	0.1	0.28	0.1	0.19	0.14	0.19	0.06	0.14	0.07	0.03	0.04	0.04	0.12	0.1	0.11
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	0.02	<0.01	0.02	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Titanium	0.08	0.05	0.03	<0.01	<0.01	<0.01	0.07	0.04	0.07	0.08	0.15	0.05	0.1	0.02	<0.01	<0.01	0.06	0.01	0.02	<0.01	<0.01	<0.01
Uranium	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
Zinc	21	32	19	17	21	12	25	24	17	10	19	10	16	12	18	18	16	17	16	14	19	15
Physical Properties																						
Moisture (%)	76.38	75.35	75.67	75.17	79.70	76.20	77.55	77.14	77.49	78.65	78.51	70.07	65.80	76.15	76.05	75.76	73.26	75.80	73.05	76.67	74.65	73.75
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	0.002	<0.001	<0.001	<0.001	<0.001
Polonium-210 (Bq/g)	0.0026	0.0012	0.001	0.0023	0.0019	0.0012	0.0014	0.0013	0.0015	0.00003	0.0016	0.0022	0.0015	0.0006	0.0007	0.0032	0.0008	0.0008	0.0016	0.0021	0.0033	0.0021
Radium-226 (Bq/g)	<0.0002	<0.0002	<0.0002	<0.00005	<0.00005	<0.00005	<0.00006	0.00009	0.0001	0.0001	0.00009	0.0001	0.00007	<0.00005	<0.00005	<0.00007	<0.0002	<0.0002	<0.0002	<0.00006	<0.00006	<0.00006
Thorium-230 (Bq/g)	<0.0005	<0.0005	<0.0005	-	-	-	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	-	-	<0.0001	<0.0005	<0.0005	<0.0005	<0.0001	<0.0001	<0.0001

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

²Some 2021 samples were collected in the early months of 2022.

- = data not available.

Appendix C, Table 14

Detailed spruce grouse flesh chemistry results from the EARMP community program, 2017 to 2021.

Chemical ¹	Black Lake						Camsell Portage			Fond du Lac					
	2017			2021 ²			2021 ²			2017			2021 ²		
	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
Metals															
Aluminum	3.6	1.8	<0.5	0.6	<0.5	<0.5	<0.5	0.7	3.2	1.3	0.5	0.6	<0.5	<0.5	<0.5
Antimony	0.03	<0.02	<0.02	<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	<0.01	<0.01	<0.01	0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Barium	0.04	0.02	<0.01	<0.01	0.03	0.02	0.04	0.03	0.06	0.04	<0.01	0.03	0.02	0.01	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
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	0.006	0.009	0.005	<0.002	0.002	<0.002	0.002	0.003	0.035	0.013	0.006	0.028	0.011	0.011	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
Cobalt	0.005	0.036	0.019	0.003	<0.002	0.002	0.002	<0.002	<0.002	0.006	0.004	0.009	<0.002	<0.002	<0.002
Copper	2.5	3.6	3.3	2.7	3.4	2.8	2.2	2.8	2.5	2.5	4.1	2.9	2.9	3.1	1.8
Iron	50	99	49	34	33	34	26	37	35	54	64	46	40	55	24
Lead	4.2	0.36	0.9	<0.002	0.008	0.032	<0.002	<0.002	0.002	0.34	0.027	0.004	0.009	0.014	<0.002
Manganese	0.51	0.74	0.4	0.45	0.4	0.58	0.59	0.46	0.66	1.2	1.2	3.4	0.78	0.81	0.42
Mercury	0.001	0.001	0.002	0.001	<0.001	0.001	<0.001	0.001	0.001	<0.001	0.002	0.002	<0.001	0.001	<0.001
Molybdenum	<0.02	0.06	0.03	0.02	0.02	<0.02	0.02	0.05	0.1	0.03	0.07	0.02	0.04	0.04	0.02
Nickel	0.07	0.03	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.04	<0.01	0.01	<0.01	<0.01	<0.01
Selenium	0.28	0.27	0.24	0.26	0.32	0.41	0.23	0.2	0.23	0.24	0.36	0.29	0.25	0.28	0.22
Silver	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.004	<0.002	0.004	<0.002	<0.002	<0.002
Strontium	0.09	0.06	0.03	0.04	0.04	0.07	0.07	0.04	0.05	0.08	0.05	0.13	0.03	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
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	0.11	0.11	0.02	0.02	<0.01	<0.01	<0.01	0.01	0.03	0.06	0.03	0.04	0.07	0.01	0.03
Uranium	<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
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	13	18	7.5	8.9	7.1	7	6.4	6.8	7.3	13	18	23	8.8	8.9	15
Physical Properties															
% Moisture	76.49	74.28	77.38	69.75	70.94	71.14	74.00	72.63	71.58	72.20	73.87	73.88	72.32	71.96	71.84
Radionuclides															
Lead-210 (Bq/g)	-	-	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	-	-	-	<0.001	<0.001	<0.001
Polonium-210 (Bq/g)	0.0004	0.0003	0.0003	<0.0002	<0.0002	0.0002	<0.0002	0.0007	0.0009	0.0007	0.001	0.0007	0.0005	0.0007	<0.0002
Radium-226 (Bq/g)	<0.0002	<0.0002	0.0002	<0.00005	<0.00005	<0.00007	<0.00005	<0.00005	<0.00005	<0.0002	0.0002	<0.0002	<0.00005	<0.00005	<0.00005
Thorium-230 (Bq/g)	<0.0005	<0.0005	<0.0005	-	-	-	-	-	-	<0.0005	<0.0005	<0.0005	-	-	-

Appendix C, Table 14

Detailed spruce grouse flesh chemistry results from the EARMP community program, 2017 to 2021.

Chemical ¹	Stony Rapids						Uranium City						Wollaston Lake					
	2017				2021 ²		2017			2021 ²			2017			2021 ²		
	1	2	3	4	1	2	1	2	3	1	2	3	1	2	3	1	2	3
Metals																		
Aluminum	4.9	2.8	1.4	1.5	2.4	<0.5	0.8	1.7	0.6	0.8	<0.5	<0.5	<0.5	0.7	0.6	<0.5	<0.5	<0.5
Antimony	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.23	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.03	<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
Barium	0.06	0.08	0.02	0.02	0.03	0.01	0.02	0.18	<0.01	<0.01	0.02	0.02	0.02	0.05	0.03	<0.01	0.01	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
Boron	<0.2	0.2	0.4	0.4	<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
Cadmium	0.005	0.009	0.004	0.026	<0.002	0.01	0.005	0.004	0.014	0.003	0.004	<0.002	<0.002	0.006	0.002	<0.002	0.003	0.003
Chromium	0.1	<0.1	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
Cobalt	0.004	0.002	0.005	0.004	<0.002	<0.002	<0.002	0.003	0.004	<0.002	<0.002	<0.002	<0.002	0.006	0.002	0.004	<0.002	<0.002
Copper	2	1	2.2	2.3	2.1	3	3.1	2.2	2.8	0.98	2	3.1	2.9	1.7	2.9	1.7	2.4	2.9
Iron	34	41	43	46	27	54	44	59	52	33	29	37	34	33	41	26	37	39
Lead	4	0.046	0.22	0.084	<0.002	0.024	0.004	2.4	0.19	0.1	0.075	0.12	<0.002	0.006	0.35	0.08	<0.002	<0.002
Manganese	1.6	1.1	2.8	10	0.33	0.38	0.43	0.87	0.42	0.34	0.25	0.43	0.3	0.71	0.42	0.4	0.47	0.71
Mercury	0.001	<0.001	<0.001	<0.001	0.003	<0.001	<0.001	0.002	0.001	<0.001	<0.001	<0.001	0.002	<0.001	0.001	<0.001	<0.001	<0.001
Molybdenum	0.04	0.08	<0.02	0.03	0.05	<0.02	<0.02	0.05	0.02	0.03	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.02
Nickel	0.03	0.04	0.02	<0.01	<0.01	<0.01	<0.01	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	0.03	<0.01	0.01	<0.01	<0.01
Selenium	0.2	0.18	0.16	0.18	0.13	0.22	0.26	0.32	0.16	0.1	0.44	0.26	0.37	0.29	0.22	0.26	0.22	0.33
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	0.14	0.15	0.14	0.09	0.15	0.04	0.04	0.52	0.03	0.03	0.05	0.03	0.04	0.05	0.08	0.12	0.05	0.12
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	0.23	0.13	0.05	0.04	0.11	0.01	0.03	0.08	0.03	0.04	<0.01	0.01	<0.01	0.05	0.04	0.02	<0.01	<0.01
Uranium	<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	<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	10	22	14	27	7.2	8.3	8.2	19	7	13	6.9	8.2	5.3	7.2	7.3	7	6.5	7
Physical Properties																		
% Moisture	77.87	74.13	73.90	72.95	71.70	71.54	71.46	73.35	72.07	74.90	72.87	71.66	72.48	72.63	72.86	74.13	72.04	71.87
Radionuclides																		
Lead-210 (Bq/g)	-	-	-	-	<0.001	<0.001	<0.001	-	-	-	<0.001	<0.001	<0.001	-	-	-	<0.001	<0.001
Polonium-210 (Bq/g)	0.0003	<0.0002	0.0002	0.0004	0.0002	0.0004	0.0005	0.0003	0.0006	<0.0002	0.0002	0.0002	<0.0002	<0.0002	0.0006	<0.0002	0.0006	0.0005
Radium-226 (Bq/g)	<0.0002	<0.0002	<0.0002	<0.0002	<0.00005	<0.00005	<0.00005	<0.0002	<0.0002	<0.0002	<0.00005	<0.00005	<0.00005	<0.0002	<0.0002	<0.0002	<0.00005	<0.00005
Thorium-230 (Bq/g)	<0.0005	<0.0005	<0.0005	<0.0005	-	-	-	<0.0005	<0.0005	<0.0005	-	-	-	<0.0005	<0.0005	<0.0005	-	-

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

²Some 2021 samples were collected in the early months of 2022.

- = data not available.