# Technical Report for the Christie Lake Uranium Project, Saskatchewan, Canada

Report Prepared for UEX Corporation





**Report Prepared by** 



SRK Consulting (Canada) Inc. 3CU002.000 February 1, 2019 Christie Lake \* Project La Ronge

Regina

# Technical Report for the Christie Lake Uranium Project, Saskatchewan, Canada

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#### SRK Project Number 3CU002.000

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# **IMPORTANT NOTICE**

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# **Executive Summary**

#### Introduction

The Christie Lake Project is an advanced uranium exploration project located in Saskatchewan, Canada. It is located approximately 640 kilometres north of Saskatoon. UEX Corporation (UEX) holds a 60 percent interest in the Christie Lake Project through a joint venture agreement with JCU (Canada) Exploration Company, Limited (JCU).

This technical report documents the Mineral Resource Statement prepared by SRK Consulting (Canada) Inc. SRK for the Christie Lake Uranium Project, Saskatchewan, Canada. It was prepared following the standards of the Canadian Securities Administrators' National Instrument 43-101(NI 43-101) and Form 43-101F1.

#### **Property Description and Ownership**

The Christie Lake Project encompasses the majority of Yalowega Lake of northern Saskatchewan, and is located approximately 640 kilometres north of Saskatoon, 110 kilometres west of Wollaston Lake and 270 kilometres northeast of the community of Pinehouse. The project measures approximately 7,922 hectares comprising of six contiguous areas to which UEX shares title with JCU through a joint venture agreement. UEX is the current project operator and holds a 60 percent interest in the Christie Lake Project with the remaining 40 percent held by JCU.

The Christie Lake Project, with uranium deposits along the Yalowega Trend, is an undeveloped mineral resource definition-stage exploration project. The exploration work completed thus far has been limited primarily to drilling and geophysical surveys. Mineral dispositions for the project were staked between 1985 and 1990.

The Christie Lake Project is accessible by a series of paved and gravel roads leading from Prince Albert to The McArthur River Mine, where a 20-kilometre-long access trail continues northeast to the Yalowega Lake Camp. The project is located within the Athabasca sedimentary basin region, coincident with the Athabasca Plain ecoregion and Boreal Shield Ecozone. The topography of the area is relatively flat characterized by undulating glacial moraine, outwash, drumlins, and lacustrine plains.

The Christie Lake Project originally consisted of three claims, CBS-6163, CBS-7610 and CBS-8027, staked between 1985 and 1986 by PNC. Three additional claims, S-101720, S-101721, and S-101722, were staked and added to the project in 1990. The Christie Lake Project was owned and operated by PNC from 1985 to 2000 and the six claims were actively explored until 1997. In November 2000, JCU acquired 100 percent ownership of the Christie Lake Project. Active exploration, however, did not resume until January 2016 when JCU entered into an option agreement with UEX.

#### **Geology and Mineralization**

The Christie Lake Project is located in the south-eastern Athabasca Basin, underlain by late Paleoproterozoic Manitou Falls Group sandstone, conglomerate and mudstone. The shallowly dipping sandstones of the Athabasca Basin lies unconformably upon Archean granitic gneiss and early Paleoproterozoic metasedimentary gneiss rocks of the Wollaston Domain. The project lies within the western part of the Wollaston Domain, which is part of the Cree Lake Mobile Zone of the Trans-Hudson Orogen. Unconsolidated Quaternary glacial and periglacial deposits, consisting of ground moraine, esker, drumlin, outwash, aeolian and lacustrine sediments, effectively mask most of the bedrock in the area and can form a cover up to 90 metres thick.

The Paul Bay, Ken Pen, and Ōrora uranium mineralized zones are located in the northeastern part of the property, in mineral disposition CBS-8027. The northwest part of the project area is cut by the Yalowega

Trend Fault, interpreted as an extension of the P2 Fault that hosts the uranium deposits at the McArthur River Mine.

In the eastern part of the basin, where the Christie Lake Project is located, the Athabasca Group is represented by the Manitou Falls Formation and is an approximately 400-metre thick sequence of quartz arenite sandstone with minor conglomerate beds and trace mudstone beds.

The Wollaston Domain is a northeast-trending fold thrust belt composed of remobilized Archean basement and overlying Paleoproterozoic supracrustal sequences of the Wollaston Supergroup. At Christie Lake the hanging wall lithologies of the Wollaston Domain are mostly semi-pelite paleosome with intervals of pegmatite textured neosome. The footwall lithologies are more quartz-rich composed mainly of psammite and quartzo-feldspathic gneiss. The base of the hanging wall is characterized by an interval of graphitic pelite, often faulted, that is spatially related to uranium mineralization.

The Paul Bay Zone is an 80-metre-long mineralized body that plunges for at least 200 metres to the southwest from the unconformity and follows the dip of the faulted Lower Wollaston Domain graphitic metasedimentary rocks characterized by an interval of graphitic pelite. The Ken Pen Zone is approximately 260 metres to the northeast from the Paul Bay Zone, striking in a northeast direction concordant with the Yalowega Trend Fault. Ken Pen plunges about 80 m into the basement from the unconformity with a plunge that is similar to Paul Bay. The Ōrora Zone is located approximately 360 m northeast of the Ken Pen Zone. Ōrora uranium mineralization manifests dominantly at the unconformity, approximately 420 metres below surface and can extend up to 40 metres into the basement rocks along the Yalowega Fault.

The mineralized zones along the Yalowega Trend are associated with intense fracturing and brecciation and have a bleached argillic alteration halo extending up to 35 metres above the mineralization. The best uranium mineralization is associated with breccias in the lower part of the Yalowega Trend Fault Zone. Alteration haloes associated with the mineralized zones at Christie Lake are typical of Athabasca Basin uranium deposits and are dominated by silicification, hematization, precipitation of drusy quartz and illitization with massive quartz dissolution and intense fracturing. In the basement rocks the alteration typically consists of hydrothermal illitization, chloritization and the development of dravite, which is superimposed upon and commonly obliterates the paleo-weathering profile. The alteration styles at the Christie Lake Project are found as haloes around the mineralized zones.

#### **Exploration Status**

After staking of the claims, the initial exploration work at the Christie Lake Project was ground geophysical surveys. Gravity and time domain electromagnetic (TDEM) surveys with fixed loop and stepwise moving loop configurations were initiated in 1986 and completed in 1987. Airborne frequency domain (HEM) and TDEM coupled with magnetic data surveys were completed in 1992.

Lake sediment sampling was completed in 1987 and followed-up by a soil sampling program in 1988. Between 1987 and 1997 eight ground TDEM surveys of various configurations were completed over the Christie Lake Project. The most effective survey was the 1994 fixed loop TDEM survey that focused on the Yalowega Trend.

JCU did not perform any exploration activity in the period 2000 to 2016.

UEX has conducted 31,065.1 m of core drilling in 81 drill holes along the Yalowega Trend between Paul Bay and the northern property boundary between 2016 and 2018.

The exploration potential of the Yalowega Trend is largely related to the unconformity subcrop of graphitic metasedimentary rocks that have been faulted by syn- and post-Athabasca sandstone deformation events and can be inferred by conductors from various configurations of electromagnetic surveys. The Yalowega Trend is largely untested beyond the area between the Paul Bay and Ōrora zones.

### Data Verification

In the opinion of SRK, the sampling preparation, security, and analytical procedures used by UEX are consistent with generally accepted industry best practices and are, therefore, adequate for an advanced exploration project.

In accordance with NI 43-101 reporting standards, Mr. Glen Cole, PGeo (APEGS#26003, APGO#1416) visited the Christie Lake Project between September 19 and 20, 2018 during drilling operations, accompanied by Mr. Chris Hamel, PGeo (APEGS# 12985) and other UEX personnel.

The purpose of the site visit was to review the generation of the exploration database and validation procedures, review exploration procedures, define geological modelling procedures, examine drill core, interview project personnel, and to collect relevant information for the preparation of a mineral resource model and the compilation of a technical report.

SRK was given full access to relevant data and conducted interviews with UEX personnel to obtain information on the past exploration work, to understand procedures used to collect, record, store and analyze historical and current exploration data.

Overall, SRK considers analytical results from core sampling conducted at the Christie Lake Project as globally sufficiently reliable for the purpose of resource estimation. The data examined by SRK do not present obvious evidence of significant analytical bias.

#### **Mineral Resource and Mineral Reserve Estimates**

The construction of the mineral resource was a collaborative effort between UEX and SRK staff. Mr. Trevor Perkins, PGeo (APEGS#12067) and Mr. Chris Hamel, PGeo (APEGS#12985), from UEX, provided technical input throughout the geological and mineralized domain modeling process. Dr. Mitrofanov, PGeo (APGO#2824) reviewed the data and constructed the low- and high-grade wireframes. Grade estimation and associated sensitivity analyses, validation checks and mineral resource classification were performed by Dr. Machuca, PEng (PEO#100508889). Mr. Glen Cole, PGeo (APEGS# 26003, APGO#1416) conducted the site visit and provided technical guidance. The mineral resource estimation process was reviewed by Mr. Cliff Revering, PGeo (APEGS# 9764).

By virtue of their education, membership to a recognized professional association, and relevant work experience, Dr. Mitrofanov, Dr. Machuca, and Mr. Cole are independent qualified persons as this term is defined by National Instrument 43-101.

The mineralization zone boundaries were developed using a combined set of criteria including lithology, alteration and mineralization logging, presence of clay and assay grade. Overall, the marginal threshold value of 0.01 percent  $U_3O_8$  was used for contouring, however, the intervals with  $U_3O_8$  grade between 0.01 and 0.05 percent were included only if additional logged evidence of uranium mineralization exist.

Most of the analytical samples were collected at 0.5-metre intervals. A modal composite length of approximately 0.5 metres was applied to all the data, generating composites as close to 0.5-metres as possible, while creating residual intervals of up to 0.25 metres in length (drill hole assays). In all cases, composite files were derived from raw values within the modelled resource domains.

Given the high correlation between  $U_3O_8$  grades and specific gravity, block specific gravity values were calculated from estimated uranium grades using the following quadratic regression formula:

 $SG = 2.637 + 0.0111 \times U_3 O_8 + 0.000552 \times (U_3 O_8)^2,$ 

where SG is the estimated specific gravity and  $U_3O_8$  is the assayed or estimated uranium grade.

Polygonal declustering bounded by the domain solids was applied to capped composite grades to produce representative uranium statistics. Spatial statistics was performed on capped composite grades of all domains and deposits combined. Due to the difficulty to obtain workable experimental variograms for individual domains, all data for variography was combined and experimental variograms were calculated on normal-scores transformed composite grades, which were back-transformed to original units for the fitting of the variogram model.

The block model was rotated to coincide with the overall strike of the three deposits and consists of 5 by 10 by 2.5 metres parent cells with 0.5 by 0.5 by 0.5 subcells. Grade estimation was undertaken by ordinary kriging (OK) constrained by uranium mineralization wireframes. In all cases the boundaries defined by the mineralization wireframes were treated as hard.

Grade estimation was undertaken in four passes using dynamic anisotropic search ellipsoids for all passes excepting the first one. The local angles required for dynamic anisotropy were obtained from the wireframe facets and interpolated into the model. The last two passes were designed to fill the gaps and to complete the estimation of all the blocks within the domains. Thus, the search ranges for the third and fourth passes correspond to twice and trice the full variogram ranges, respectively.

The estimated block model was validated visually and statistically using cross sections, swath-plots and change of support analysis.

The Mineral Resource Statement for the Christie Lake Project is presented in Table i. Considering the early stage of the Christie Lake Project, the general widely spaced drill pattern and the overall uncertainty in the spatial distribution of grades, SRK consider all the reported mineral resources to be classified as Inferred Mineral Resources. After review of similar underground projects and discussions with UEX, SRK considers that it is appropriate to report the mineral resources for the Christie Lake Project at a cut-off grade of 0.2 percent of  $U_3O_8$ . The effective date of the Mineral Resource Statement for the Christie Lake Project is December 13, 2018.

Deposit	Tonnage (000s)	Grade (% U <sub>3</sub> O8)	Contained Metal (MIb U <sub>3</sub> O <sub>8</sub> )
Inferred Mineral	Resources		
Paul Bay	338	1.81	13.49
Ken Pen	149	1.05	3.44
Ōrora	102	1.53	3.41
Total	588	1.57	20.35

Table i: Mineral Resource Statement\*, Christie Lake Project, Saskatchewan, Canada,SRK Consulting (Canada) Inc., December 13, 2018

\* Mineral resources are not mineral reserves and have not demonstrated economic viability. All figures have been rounded to reflect the relative accuracy of the estimates. Reported at a cut-off grade of 0.2% U<sub>3</sub>O<sub>8</sub>.

#### **Conclusion and Recommendations**

Exploration drilling on the Christie Lake Project has focused on the Paul Bay, Ken Pen and Ōrora zones to test the continuity of uranium mineralization at and near the unconformity within the project. SMDC, PNC and UEX and previous operators completed a total of 177 core drill holes (78,585 metres) between 1988 to 2018. Exploration programs to date have revealed a variety of uranium mineralization styles at the three main zones that includes a combination of basement- and unconformity-hosted mineralization.

SRK witnessed the extent of the exploration work and can confirm that UEX's activities are conducted using field procedures that meet generally accepted industry best practices. SRK is of the opinion that the exploration data are sufficiently reliable to interpret the boundaries of the uranium mineralization and support the evaluation and classification of mineral resources in accordance with generally accepted CIM Estimation of

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Mineral Resource and Mineral Reserve Best Practices and CIM Definition Standards for Mineral Resources and Mineral Reserves.

The block model was classified using a combination of tools, including confidence in the geological interpretation, search radii, minimum number of drill holes and composites, variography, and estimation pass. In collaboration with UEX, SRK selected a block size of 5 by 10 by 2.5 metres for all mineralized zones. Subcells were assigned the same grade as the parent cell. The block model is rotated on the Z-axis to honour the orientation of the overall strike of the three deposits.

In all cases, grade estimation used an ordinary kriging estimation algorithm and four estimation passes informed by capped composites. Validation checks confirm that the block estimates are a reasonable representation of the informing data considering the current level of geological and geostatistical understanding of the project.

No processing or metallurgical data is currently available for Project lithologies or the uranium mineralization. Considering this uncertainty, the current level of drilling and the uncertainty in grade continuity, SRK considers all block estimates within the mineralized zones to be classified as Inferred.

The geological setting, character of the uranium mineralization delineated, and exploration results to date are of sufficient merit to justify additional exploration expenditure to potentially expand the uranium mineralization footprint on the Christie Lake property.

SRK supports UEX's primary exploration objectives for the Christie Lake property, which are:

- 1. Expand the existing zones of uranium mineralization along the Yalowega Trend.
- 2. Identify and/or test:
  - Additional areas of uranium mineralization along the Yalowega Trend.
  - The remainder of the P2 structural corridor to the southwest of the three main zones.
  - The southern conductive corridor(s).

The Christie Lake Project hosts multiple significant uranium deposits along the Yalowega Trend. The trend remains under-explored and is considered highly prospective for the discovery of additional lenses and zones of uranium mineralization.

SRK supports the proposed UEX two-phase exploration program for the Christie Lake Project which is focussed on identifying additional uranium mineralization and expanding the current uranium mineralization footprint on the property. The first phase of the exploration program has a budget of C\$2,000,000 and is expected to commence in the winter of 2019. The second phase will be contingent of the first phase and has a budget of approximately C\$3,144,000.

The proposed exploration program should be pro-actively managed, with new information rapidly integrated into the uranium mineralization interpretation. Additional infill exploration drilling should also be considered in order to increase the mineral resources category from Inferred to Indicated in the high-grade areas of Paul Bay and Ōrora zones. Drill programs should be flexible enough to be modified to integrate new information and interpretations which could have a positive impact on the uranium mineral resource.

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# **1** Introduction and Terms of Reference

The Christie Lake Project is an advanced exploration uranium project located in Saskatchewan, Canada. UEX Corporation (UEX) holds a 60 percent interest in the Christie Lake Project through a joint venture agreement with JCU (Canada) Exploration Company, Limited (JCU).

UEX is a Canadian uranium exploration and development company. UEX is currently advancing its Canadian uranium deposits at Christie Lake, Raven – Horseshoe, and Shea Creek. Through it's wholly owned subsidiary CoEX Metals Corporation (CoEX) it is evaluating and advancing the West Bear Cobalt-Nickel Deposit on the West Bear Property.

An initial technical report primarily summarizing the exploration activities undertaken on the Christie Lake Project was prepared and publicly filed for UEX on March 28, 2017 (Perkins et al, 2017). In July 2018, UEX commissioned SRK Consulting (Canada) Inc. (SRK) to visit the Christie Lake property and prepare a geological and mineral resource model for the Christie Lake Project. The services were rendered between September to December 2018 leading to the preparation of the Mineral Resource Statement reported herein that was disclosed publicly by UEX in a news release on December 19, 2018.

This technical report documents the Mineral Resource Statement prepared by SRK for the Christie Lake Project, Saskatchewan, Canada. It was prepared following the standards of the Canadian Securities Administrators' National Instrument 43-101(NI 43-101) and Form 43-101F1. The Mineral Resource Statement reported herein was prepared in conformity with generally accepted Canadian Institute of Mining, Metallurgy and Petroleum (CIM) *Exploration Best Practices Guidelines* and CIM *Estimation of Mineral Resources and Mineral Reserves Best Practice Guidelines*.

## 1.1 Scope of Work

The scope of work, as defined in a letter of engagement executed on July 24, 2018 between UEX and SRK includes the construction of a mineral resource model for the uranium mineralization delineated by drilling on the Christie Lake Project, and the preparation of an independent technical report in compliance with NI 43-101 and Form 43-101F1 guidelines. This work typically involves the assessment of the following aspects of the project:

- Topography, landscape, access
- Regional and local geology
- Exploration history
- Audit of exploration work carried out on the project
- Geological modelling
- Mineral resource estimation and validation
- Preparation of a Mineral Resource Statement
- Recommendations for additional work

## 1.2 Work Program

The Mineral Resource Statement reported herein is a collaborative effort between UEX and SRK personnel. The exploration database was compiled and maintained by UEX and was audited by SRK. The geological / mineral resource domain model was created by SRK using three-dimensional

geological wireframes provided by UEX as guidance. The outlines for the uranium mineralization were constructed by SRK. In the opinion of SRK, the updated geological model is a reasonable representation of the distribution of the targeted mineralization at the current level of sampling. The geostatistical analysis, variography and grade models were completed by SRK during the months of September to December 2018. The Mineral Resource Statement reported herein was presented to UEX in a memorandum report on December 13, 2018 and disclosed publicly in a news release dated December 19, 2018.

The Mineral Resource Statement reported herein was prepared in conformity with the generally accepted CIM *Exploration Best Practices Guidelines* and CIM *Estimation of Mineral Resource and Mineral Reserves Best Practices Guidelines*. This technical report was prepared following the standards of the NI 43-101 and Form 43-101F1.

The technical report was assembled by SRK in Toronto during the period of December 2018 to January 2019.

## 1.3 Basis of Technical Report

This report is based on information collected by SRK during a site visit performed between September 19 and 20, 2018 and on additional information provided by UEX throughout the course of SRK's investigations. SRK has no reason to doubt the reliability of the information provided by UEX. Other information was obtained from the public domain. This technical report is based on the following sources of information:

- Discussions with UEX personnel.
- Inspection of the Christie Lake Project area, including drill core.
- Review of exploration data collected by UEX.
- Additional information from public domain sources.
- Report contributions provided by UEX.

## 1.4 Qualifications of SRK and SRK Team

The SRK Group comprises more than 1,400 professionals, offering expertise in a wide range of resource engineering disciplines. The independence of the SRK Group is ensured by the fact that it holds no equity in any project it investigates and that its ownership rests solely with its staff. These facts permit SRK to provide its clients with conflict-free and objective recommendations. SRK has a proven track record in undertaking independent assessments of mineral resources and mineral reserves, project evaluations and audits, technical reports and independent feasibility evaluations to bankable standards on behalf of exploration and mining companies, and financial institutions worldwide. Through its work with a large number of major international mining companies, the SRK Group has established a reputation for providing valuable consultancy services to the global mining industry.

The mineral resource evaluation work of this technical report was completed by Dr. Aleksandr Mitrofanov, PGeo (APGO#2824) from SRK, with support from Dr. David Machuca, PEng (PEO#100508889). Mr. Cliff Revering, PGeo (APEGS#9764) from SRK peer reviewed the mineral resource model.

Mr. Christopher Hamel, PGeo (APEGS# 12985) Chief Geologist with UEX, provided the exploration database used for the mineral resource evaluation and contributed to certain sections of the technical report. Mr. Glen Cole, PGeo (APEGS#26003, APGO#1416), a Principal Consultant

and Practice Leader with SRK, supervised the preparation of this technical report and according to SRK internal quality management procedures and reviewed drafts of this technical report prior to delivery to UEX. By virtue of their education, membership to a recognized professional association and relevant work experience, Dr. Mitrofanov, Dr. Machuca, Mr. Revering, Mr. Hamel and Mr. Cole are independent Qualified Persons as this term is defined by NI 43-101.

Contributions towards the technical report compilation and analytical control data analysis were provided by Ms. Joycelyn Smith, PGeo (APGO#2963) from SRK.

## 1.5 Site Visit

In accordance with NI 43-101 guidelines, Mr. Cole visited the Christie Lake Project on September 19 to 20, 2018 during the active drilling program, accompanied Mr. Christopher Hamel and other UEX personnel.

The purpose of the site visit was to review the digitalization of the exploration database and validation procedures, review exploration procedures, define geological modelling procedures, examine drill core, interview project personnel, and collect all relevant information for the preparation of the geological and mineral resource models and the compilation of the technical report.

The site visit was primarily aimed at investigating the geological controls on the distribution of the uranium mineralization to facilitate the construction of three-dimensional domains populated with uranium values. SRK was given full access to relevant data and conducted interviews with UEX personnel to obtain information on the past exploration work, to understand procedures used to collect, record, store and analyze historical and current exploration data.

## 1.6 Acknowledgement

SRK would like to acknowledge the support and collaboration provided by UEX personnel Mr. Trevor Perkins (Exploration Manager), Mr. Christopher Hamel (Chief Geologist), Ms. Alexa Gross (Geologist) and Ms. Rachel Scharf (Geologist) for this assignment. Their collaboration was greatly appreciated and instrumental to the success of this project.

## 1.7 Declaration

SRK's opinion contained herein and effective **December 13, 2018** is based on information collected by SRK throughout the course of SRK's investigations. The information in turn reflects various technical and economic conditions at the time of writing this report. Given the nature of the mining business, these conditions can change significantly over relatively short periods of time. Consequently, actual results may be significantly more or less favourable.

This report may include technical information that requires subsequent calculations to derive subtotals, totals, and weighted averages. Such calculations inherently involve a degree of rounding and consequently introduce a margin of error. Where these occur, SRK does not consider them to be material.

SRK is not an insider, associate or an affiliate of UEX and neither SRK nor any affiliate has acted as advisor to UEX, its subsidiaries or its affiliates in connection with this project. The results of the technical review by SRK are not dependent on any prior agreements concerning the conclusions to be reached, nor are there any undisclosed understandings concerning any future business dealings.

# 2 Reliance on Other Experts

SRK did not perform an independent verification of land title and tenure information as summarized in Section 3 of this report. SRK did not verify the legality of any underlying agreement(s) that may exist concerning the permits or other agreement(s) between third parties but relied on the law firm MLT Aikens of Saskatoon, Saskatchewan who was contracted by UEX to conduct a title search on the mineral dispositions within the Christie Lake Project.

The determination of MLT Aikens, dated October 10, 2018, is that the dispositions are held 100 percent by JCU, and there are no encumbrances, charges, or instruments in effect with relation to these dispositions (MLT Aikens, 2018). A copy of title search is provided in Appendix A.

SRK was informed by UEX that there are no known litigations potentially affecting the Christie Lake Project.

# **3 Property Description and Location**

The Christie Lake Project encompasses the majority of Yalowega Lake of northern Saskatchewan, and is located approximately 640 kilometres north of Saskatoon, 110 kilometres west of the community of Wollaston Lake, 270 kilometres northeast of the community of Pinehouse, and 340 kilometres north of the town of La Ronge. The project is located within the corridor of high-grade uranium deposits in the eastern Athabasca basin and is approximately 10 kilometres northeast of McArthur River Mine and 30 kilometres southwest of Cigar Lake. The Key Lake uranium mill is approximately 80 kilometres to the southwest of the project. The centre of the project is located at approximately 104.515 degrees longitude west and 57.484 degrees latitude north (Figure 1).

### 3.1 Mineral Tenure

The Christie Lake Project measures approximately 7,922 hectares comprising of six contiguous areas to which UEX shares title with JCU through a joint venture agreement. UEX is the current project operator and holds a 60 percent interest in the Christie Lake Project with the remaining 40 percent held by JCU. The annual assessment work required is C\$25.00 per hectare. Total annual assessment expenditure requirements for Christie Lake are C\$198,050. The uranium mineralized Paul Bay, Ken Pen, and Ōrora zones are located on disposition CBS 8027 (Figure 2).

Under Saskatchewan law, claims are staked through an online registry. The map-designated coordinates of the claims are the legal limits of said claims, the physical limits can be verified by consulting the Government's Mineral Administration Registry Saskatchewan ("MARS") website.

A summary of the tenure information, as extracted from the MARS website, is presented in Table 1. All claims are 100 percent owned by JCU / UEX and are in good standing with expiry dates varying between March 6, 2039 and October 7, 2040.

Disposition Number	Record Date	Area (Ha)	Annual Assessment (C\$/Ha)	Total Annual Assessment (C\$)	Work Due / Lapse Date
CBS-6163	10/7/1985	1,263	25	\$31,575	10/7/2040
CBS-7610	10/7/1985	1,732	25	\$43,300	10/7/2040
CBS-8027*	15/1/1986	2,291	25	\$57,275	13/4/2040
S-101720	7/12/1990	83	25	\$2,075	5/3/2040
S-101721	7/12/1990	404	25	\$10,100	5/3/2040
S-101722	7/12/1990	2,149	25	\$53,725	6/3/2039
Total		7,992		\$198,050	

Table 1: Mineral Tenure Information for the Christie Lake Uranium Project

\* Location of the Paul Bay, Ken Pen and Orora Uranium Mineralized Zones

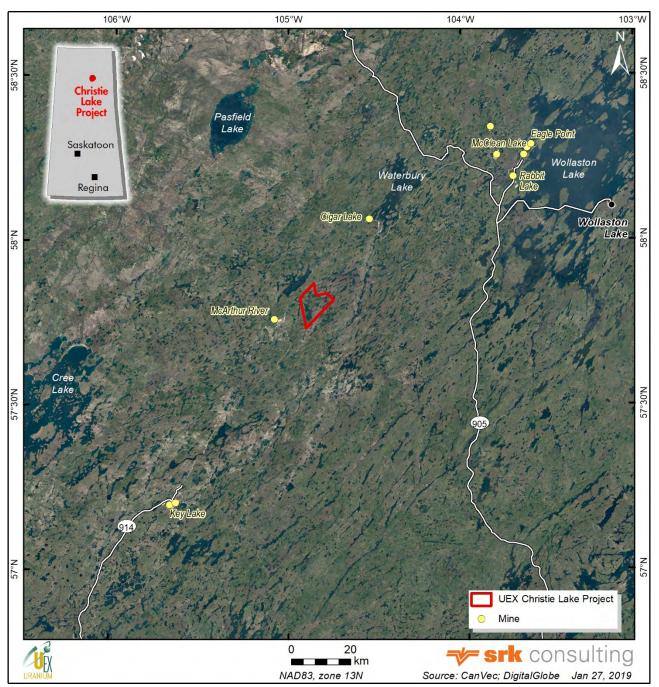


Figure 1: Location of the Christie Lake Uranium Project in Saskatchewan, Canada

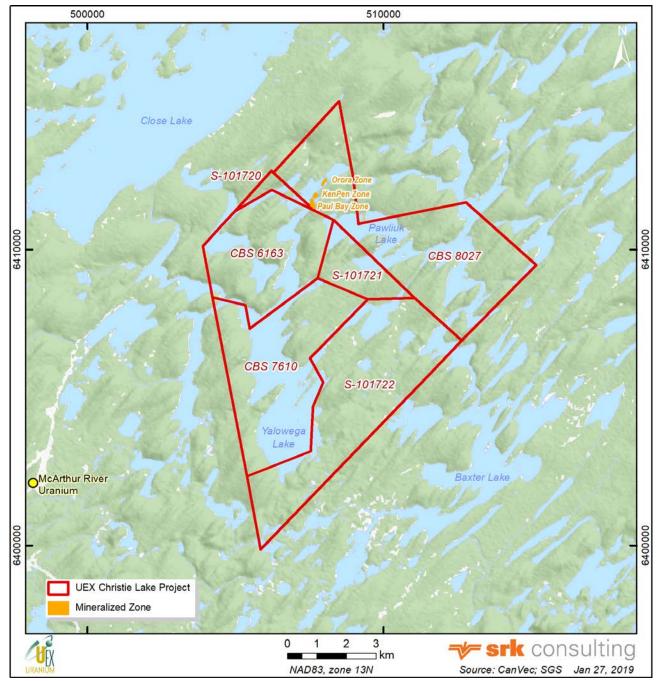


Figure 2: Land Tenure Map of the Christie Lake Uranium Project

## 3.2 Underlying Agreements

In 2016, UEX and JCU entered in to an option agreement by which UEX was to earn up to 70 percent interest in the Christie Lake Project over the next four years. This option agreement was terminated in November 2018 upon UEX reaching 60 percent equity in the project and the two companies entered into a joint venture agreement. UEX is the current project operator. As of the date of the report, the claims are held 60 percent by UEX and 40 percent by JCU, with no additional royalties, back-in rights, or encumbrances on the project or potential uranium production, other than the standard royalties due to the Government of Saskatchewan.

### 3.3 **Permits and Authorization**

Mineral exploration on land administered by the Ministry of Environment requires that surface disturbance permits be obtained prior to exploration activities. The Saskatchewan Mineral Exploration and Government Advisory Committee (SMEGAC) have developed the Mineral Exploration Guidelines for Saskatchewan to mitigate environmental impacts from industry activity and facilitate governmental approval for such activities. Applications to conduct exploration work need only to address the relevant topics of those listed in the guidelines. The types of activities are listed under the guide's best management practises (BMP) are given below in Table 2.

Best Management Practises	Permits Required and Obtained	Effective Date	Expiry Date	
Staking	-	-	-	
Grassroots Exploration	-	-	-	
Forost Clearing	Forest Production Permit 15PA269	2015-12-24	2017-06-30	
Forest Clearing	Forest Production Permit 17PA069	2017-06-17	2018-12-31	
	Temporary Work Camp 15PA269	2015-12-24	2016-12-31	
Temporary Work Camps	Temporary Work Camp 16PA281	2017-01-11	2017-12-31	
	Temporary Work Camp 17PA069	2017-06-17	2018-12-31	
Hazardous Wastes and Goods	-	-	-	
Fire Prevention and Control	-	-	-	
A 22222	Forest Production Permit 15PA269	2015-12-24	2017-06-30	
Access	Forest Production Permit 17PA069	2017-06-17	2018-12-31	
Water Creasings	Aquatic Habitat Protection Permit 15PA269	2015-12-24	2017-06-30	
Water Crossings	Aquatic Habitat Protection Permit 17PA069	2017-06-17	2018-12-31	
Exploration Trenching	-	-	-	
Drilling on Lond	Forest Production Permit 15PA269	2015-12-24	2017-06-30	
Drilling on Land	Forest Production Permit 17PA069	2017-06-17	2018-12-31	
Drilling on loo	Aquatic Habitat Protection Permit 15PA269	2015-12-24	2017-06-30	
Drilling on Ice	Aquatic Habitat Protection Permit 17PA069	2017-06-17	2018-12-31	
	Ministry of Economy legislation states that core	is to be left on-site.	Since this	
Core Storage	requirement is indicated in provincial legislation core boxes with core on-site indefinitely without			
Restoration	-	-	-	
First Nations and Métis Community Engagement	Letters to stakeholders submitted			
	Temporary Water Rights Licence to use Surface Water E8/10914 & E8/10915	2017-06-20	2017-10-01	
Water Usage	Temporary Water Rights Licence to use Surface Water E8/10925 & E8/10926	2018-01-15	2018-10-15	

Table 2: Best	Management	Practices	and Rec	wired Permits
	management	1 1 4 0 1 0 0 0		

There are no known environmental issues or liabilities potentially affecting the Christie Lake Project and all the proper permits required to conduct exploration activities on the property for all exploration campaigns have been obtained.

## 3.4 Environmental Considerations

The Christie Lake Project, with uranium deposits along the Yalowega Trend, is an undeveloped mineral resource definition-stage exploration project. The exploration work completed thus far has been limited primarily to drilling and geophysical surveys.

As far as SRK can determine, the environmental liabilities related to the Christie Lake Project, if any, are negligible.

## 3.5 Mining Rights in Saskatchewan

In Saskatchewan, mineral resources are owned by the Crown and managed by the Saskatchewan Ministry of the Economy using the Crown Minerals Act and the Mineral Tenure Registry Regulations, 2012. Staking for mineral dispositions in Saskatchewan is conducted through the online staking system, MARS. Mineral dispositions for the Christie Lake Project were staked between 1985 and 1990, prior to the implementation of MARS. Accordingly, ground staking methods were employed by PNC Exploration (Canada) Co. Ltd. (PNC) to secure these dispositions. These dispositions give the stakeholders the right to explore the lands within the disposition area for economic mineral deposits.

# 4 Accessibility, Climate, Local Resources, Infrastructure, and Physiography

## 4.1 Accessibility

The Christie Lake Project is accessible by a series of paved and gravel roads leading from Prince Albert to the McArthur River Mine, where a 20-kilometre-long access trail continues northeast to the Yalowega Lake Camp.

Highway 2 is paved road leading 187 kilometres north from Prince Albert where it connects to Highway 165. This well-maintained gravel road extends west for 112 kilometres to a junction with public access Highway 914 which leads 268 kilometres to the Key Lake mill facility. A 78-kilometre private access haul road maintained by Cameco Corporation connects Key Lake to the McArthur River Mine area where the Christie Lake access trail begins.

Charter flights can be arranged to land at the McArthur River airport year-round. Alternative transportation to the camp site includes utilizing a float- or ski-equipped aircraft or helicopter from Points North Landing to Yalowega Lake.

## 4.2 Local Resources and Infrastructure

All infrastructure currently on the Christie Lake Project is non-permanent (Figure 3). The Government of Saskatchewan requires a surface lease be issued for all permanent structures. There is access to fresh water close to the project and the hydroelectric grid is located on the project within approximately 4 kilometres of mineralized zones.

La Ronge, approximately 300 kilometres south of the project, is accessible by road and is the main source for fuel, materials and medical services. Additional resources not available in La Ronge may be sourced from the cities of Prince Albert and Saskatoon. An airfield owned by the Points North Group of Companies is located 66 kilometres northeast of the Christie Lake Camp and offers freighting services for exploration and mining activities in the eastern part of the Athabasca Basin. They also offer shipment of products and services to Prince Albert and Saskatoon.



#### Figure 3: Infrastructure and Typical Landscape in the Christie Lake Project Area

- A: Access trail to the Yalowega Camp site
- B: Aerial view of camp site infrastructure
- C: View of the non-permanent infrastructure at the Yalowega Camp site
- D: Typical landscape in the Project area

### 4.3 Climate

The Christie Lake Project is located within the Athabasca sedimentary basin region, coincident with the Athabasca Plain Ecoregion and Boreal Shield Ecozone. The climate is characterized by short and cool summers with a maximum temperature of 30 degrees Celsius, and cold and long winters with a temperature low of negative 40 degrees Celsius. During the summer solstice the period of daylight lasts nearly 18.5 hours. The winter season can start in late October and continue until May.

Precipitation varies during the year reaching an average of 40 centimetres annually and is characterized by snowfall in the winter months and moderate rainfall in the summer months. Maximum precipitation occurs during the summer months of July to September.

Exploration activities can be carried out year-round, however access is limited to the project during the months of May to October due to the abundance of lakes, muskeg and wet conditions that occur during the spring thaw.

## 4.4 Physiography

The Athabasca sedimentary basin region is characterized by variable uplands and low-lying terrain with many lakes and wetlands where peatlands and bogs are common (Figure 3). Vegetation is typical of the Boreal forest, including areas dominated by black spruce forests and feather mosses. Within the forests, Jack pines commonly occur on thin-soiled uplands and tamaracks on poorly drained lowlands.

The Athabasca Plain Ecoregion has developed on sedimentary rocks of the Athabasca Group. Bedrock rarely outcrops and is generally overlain by hummocky deposits of glacial till, glaciolacustrine, and glaciofluvial sediments. The topography of the area is relatively flat characterized by undulating glacial moraine, outwash, drumlins and lacustrine plains. The elevation range of the Athabasca Plain is from 485 to 640 metres. Drumlins, eskers, and meltwater channels have a typical local relief of 30 to 60 metres and contribute to the rolling expression of the terrain dominated by sandy glacial sediment.

Over forty species of mammals are found in the ecozone and dominantly include the caribou, moose, black bear, grey wolf, fox, lynx, beaver, otter, snowshoe hare, marten, mink and shrew. The bird species common to the ecozone include the raven, grey jay, spruce grouse, chickadee, woodpecker, bald eagle, osprey, and ptarmigan. Fish species common to the area include the lake trout, whitefish, northern pike, walleye, longnose sucker, white sucker, burbot, and arctic grayling.

# 5 History

## 5.1 Property Ownership

The Christie Lake Project originally consisted of three claims, CBS-6163, CBS-7610 and CBS-8027, staked between 1985 and 1986 by PNC. Three additional claims, S-101720, S-101721, and S-101722, were staked and added to the project in 1990. The project was owned and operated by PNC from 1985 to 2000 and the six claims were actively explored until 1997. Exploration activities were dormant from 1997 to 2016.

In November 2000, JCU acquired 100 percent ownership of the Christie Lake Project. Active exploration did not resume until January 2016 when JCU entered into an option agreement with UEX. The agreement allowed UEX to earn up to 70 percent of the Christie Lake Project over a four year earn-in period. This option agreement was terminated in November 2018 and the two companies entered into a joint venture agreement by which UEX holds a 60 percent interest and JCU holds a 40 percent interest in the project. UEX is the current project operator.

## 5.1 Exploration and Development History

Exploration activity on the Christie Lake Project between 1986 and 1997 focused on defining uranium mineralization involving airborne and ground geophysical surveys, lake sediment and geochemical sampling, and diamond drilling.

The geophysical surveys conducted were GEOTEM, DIGHEM, HLEM, VLF, gravity, EM-37 fixed/sounding/stepwise loop and downhole PEM.

Lake and soil sediment sampling in 1987 were consistent with conductive trends revealed by the geophysical surveys and returned up to 2.9 parts per million (ppm) uranium in Yalowega Lake.

Between 1988 and 1995, PNC completed 47,040 metres of core drilling in 95 drill holes. PNC made two significant discoveries as project operator. The Paul Bay Zone was discovered in 1989 when drill hole CB-04 intersected 10.59 percent  $U_3O_8$  over 8 metres, and in 1993 the Ken Pen Zone was discovered when drill hole CB-032 intersected 1.62 percent  $U_3O_8$  over 43.0 metres.

No significant exploration or development occurred after 1997 until 2016 when UEX resumed exploration activities.

## 5.2 Historical Mineral Resource Estimates

Historical mineral resource estimates presented in this section are superseded by the mineral resource estimate discussed herein. The information presented in this section is relevant to provide historical context but should not to be relied upon.

The only prior mineral resource estimate complete on the Christie Lake property is dated September 12, 1997. This estimate did not use mineral resource classifications consistent with NI 43-101. This historical mineral resource estimate considered the Paul Bay and Ken Pen deposits, based on 23 drill holes and was originally documented in an internal PNC report titled Christie Lake Project, Geological Resource Estimate completed by the Resource Analysis Group, PNC Tono Geoscience

Center (Resource Analysis Group, 1997), and was referenced in the UEX Corporation Christie Lake Project Technical Report NI 43-101, dated March 28, 2017. UEX did not consider or treat the historic estimate as an accurate representation of the mineral resources or mineral reserves of the Christie Lake deposits.

As shown in Table 3, the historical mineral resource estimates were reported at a cut-off grade of 0.30 percent  $U_3O_8$ , did not include the Ōrora deposit, and presented much higher grades and lower tonnages than that reporting in this technical report for the Paul Bay and Ken Pen deposits.

Deposit	Cut-Off Grade (% U <sub>3</sub> O <sub>8</sub> )	Tonnage (000s)	Grade (% U₃O8)	Contained Metal (MIb U <sub>3</sub> O <sub>8</sub> )
Paul Bay	0.30	231.30	3.06	15.60
Ken Pen	0.30	62.96	3.80	5.27
Total	0.30	294.25	3.22	20.87

#### Table 3: Christie Lake Project Historical Resource Estimate, PNC, 1997

## 5.3 Historical Production

There has not been any historical uranium production from the Christie Lake Project.

# 6 Geological Setting and Mineralization

## 6.1 Regional Geology

The Christie Lake Project is located in the south-eastern Athabasca Basin (Figure 4), underlain by late Paleoproterozoic Manitou Falls Group sandstone, conglomerate and mudstone. The Athabasca Basin is a broad elliptically-shaped intra-cratonic basin that is approximately 425 kilometres-long in an east-west direction and 225 kilometres-long in the north-south direction.

Unconsolidated Quaternary glacial and periglacial deposits, consisting of ground moraine, esker, drumlin, outwash, aeolian and lacustrine sediments, effectively mask most of the bedrock in the area and can form a cover up to 90 metres thick.

The shallowly dipping sandstones of the Athabasca Basin lies unconformably upon Archean granitic gneiss and early Paleoproterozoic metasedimentary gneiss rocks of the Wollaston Domain. The Wollaston Domain is a north-northeast-trending succession of tight to isoclinal folded early Paleoproterozoic metasedimentary rocks of the Wollaston Supergroup along the eastern margin of the Hearne Province. The project lies within the western part of the Wollaston Domain, which is part of the Cree Lake Mobile Zone of the Trans-Hudson Orogen.

The Wollaston Domain lies unconformably above the Archean gneisses of the Peter Lake Domain in the northeast part of the Province, and farther south the Wollaston is bounded on the east by the Needle Falls Shear Zone, a dextral, late Paleoproterozoic fault system that marks the boundary between the Wollaston Domain and the Wathaman Batholith. The Wollaston Domain is bounded to the west by the Mudjatik Domain, marked by the transitional change to open dome and basin folding where peneplained domes of Archean gneiss are separated by keels of metasedimentary and metavolcanic rocks. The western boundary of the Mudjatik Domain is the Cable Bay Shear Zone and the rocks of the Virgin River Domain to the west. Hudsonian or earlier and post-Athabasca tectonic events have resulted in structural disruptions in the Athabasca Group and Wollaston Group stratigraphy.

## 6.2 Property Geology

The Paul Bay, Ken Pen and Ōrora Deposits are located in the northeastern part of the property in mineral disposition CBS-8027. The local geological setting of the property is shown in Figure 5.

The Paleoproterozoic Manitou Falls Formation underlying the Christie Lake Project in turn unconformably overlie Paleoproterozoic metasedimentary gneiss and Archean granitic gneiss of the Hearne Province. The project lies within the western part of the Wollaston Domain, which is part of the Cree Lake Mobile Zone of the Trans-Hudson Orogen.

The northwest part of the project area is cut by the Yalowega Trend Fault, interpreted as an extension of the P2 Fault that hosts the uranium deposits at the McArthur River Mine (Figure 4). This fault is rooted in the basement rocks and extends up into the sandstone. Extensive, unconsolidated Quaternary glacial and periglacial deposits, consisting of ground moraine, esker, outwash, aeolian and lacustrine sediments, effectively mask most of the bedrock in the area and can form a cover up to 90 metres thick.

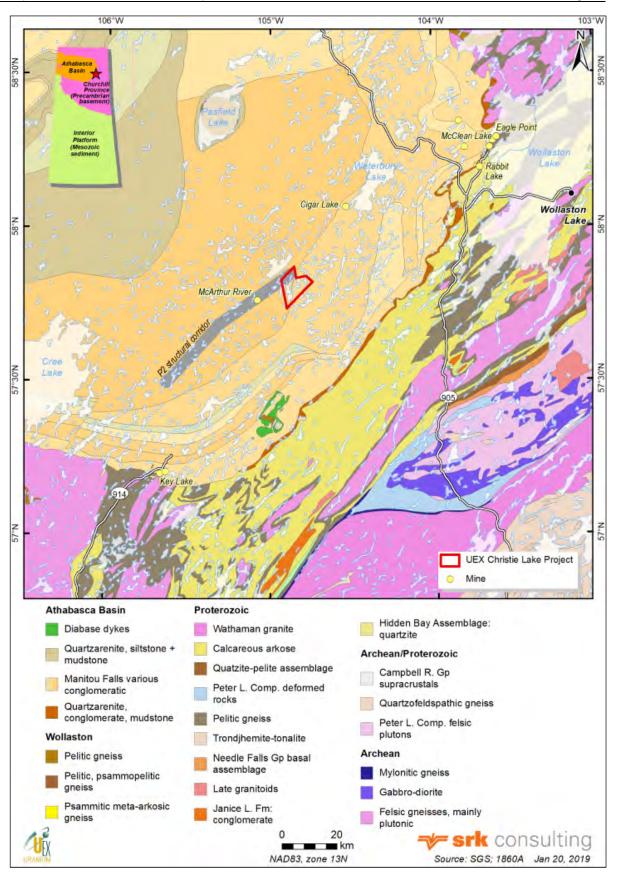


Figure 4: Regional Geology Setting of the Christie Lake Uranium Project

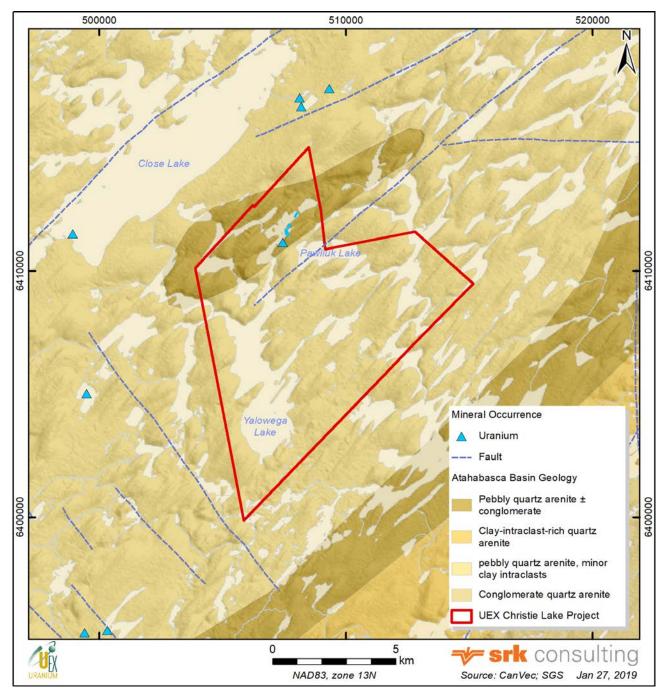


Figure 5: Local Geology Setting of the Christie Lake Uranium Project

### 6.2.1 Athabasca Group

In the eastern part of the basin, where the Christie Lake Project is located, the Athabasca Group is represented by the Manitou Falls Formation and is an approximately 400-metre thick sequence of quartz arenite sandstone with minor conglomerate beds and trace mudstone beds. In the region this formation can be divided into four major units, as described by Bernier et al. (2001):

- 1. **MFa** is the basal unit comprised of interbedded conglomerate and sandstone characterized by localized red mudstone layers and massive laminated sandstones.
- 2. **MFb** is conglomerate-rich dominated by thick conglomerate beds with pebbly sandstone interbeds.
- 3. MFc is a relatively thin medium- to coarse-grained sandstone with sparse interclasts.
- 4. **MFd** is mostly fine- to coarse-grained sandstone with white mudstone and siltstone interclasts.

The Athabasca Group unconformably overlies the Paleoproterozoic metasedimentary gneiss and Archean granite gneiss of the Wollaston Domain. The depth of the unconformity between the basement rocks (metasedimentary assemblage or Archean granite) and overlying Athabasca Group is approximately 400 to 445 metres below surface, or between 65 to 110 metres above sea level.

#### 6.2.2 Wollaston Group

The Wollaston Domain is a northeast-trending fold thrust belt composed of remobilized Archean basement and overlying Paleoproterozoic supracrustal sequences of the Wollaston Supergroup. The Wollaston Supergroup metasedimentary rocks are located along the Yalowega Trend within the Christie Lake Project area and are subdivided into an "Upper Unit" and "Lower Unit".

The Upper Unit is mostly semi-pelite paleosome with intervals of pegmatite textured neosome. The Lower Unit is more quartz-rich composed mainly of psammite and quartzo-feldspathic gneiss. The base of the Upper Unit is characterized by an interval of graphitic pelite, often faulted, that is spatially related to uranium mineralization. This graphitic pelite overlies a quartzite horizon of up to 38 metres-thick, marking the top of the Lower Unit.

### 6.2.3 Structure

Post-Athabasca reactivated fault zones within the project area have a northeast-, north-, and northwest trend. These events commonly exploit Hudsonian or earlier structures and are accompanied by hydrothermal alteration and associated uranium mineralization in both the Athabasca sandstone and basement rocks. Primary targets for uranium mineralization are faulted graphitic zones in the metasedimentary basement that have been subjected to post-Athabasca reactivation, as well as in structurally disrupted sandstone and along the unconformity. Structural reactivation allowed for channeling of significant volumes of oxidized uraniferous fluids through a reduced environment, especially along, and proximal to packages of graphitic pelitic rocks. This allowed for the deposition of uranium at an oxidization-reduction front.

## 6.3 Mineralization

Uranium mineralization in the Athabasca Basin is generally of Helikian age. Geochronological studies have determined that most deposits were formed in a time interval between 1,330 and 1,380 million years (Ma) (Cumming and Krstic, 1992), and as early as 1,590 Ma at the Millennium Deposit (Cloutier et al, 2009) and 1,521 Ma at the McArthur River Mine (Cameco Corporation, 2012) with ages of remobilization near 1,350 Ma. Uranium deposits generally occur at the unconformity between the lowermost Athabasca Group and the underlying crystalline basement rocks and are commonly localized to the intersection of faults and the unconformity, or at a paleotopographic basement ridge.

Uranium mineralization discovered at the Christie Lake Project to date occurs in three zones; the Paul Bay Zone, Ken Pen Zone and Ōrora Zone. These zones have a north-easterly trend that is coincident with the geophysically defined CB94-C conductor. The top of the mineralized zones is approximately 420 metres below surface. Uranium mineralization at the Paul Bay, Ken Pen and Ōrora zones are fault or fracture-controlled to disseminated and is monomineralic (Figure 6).

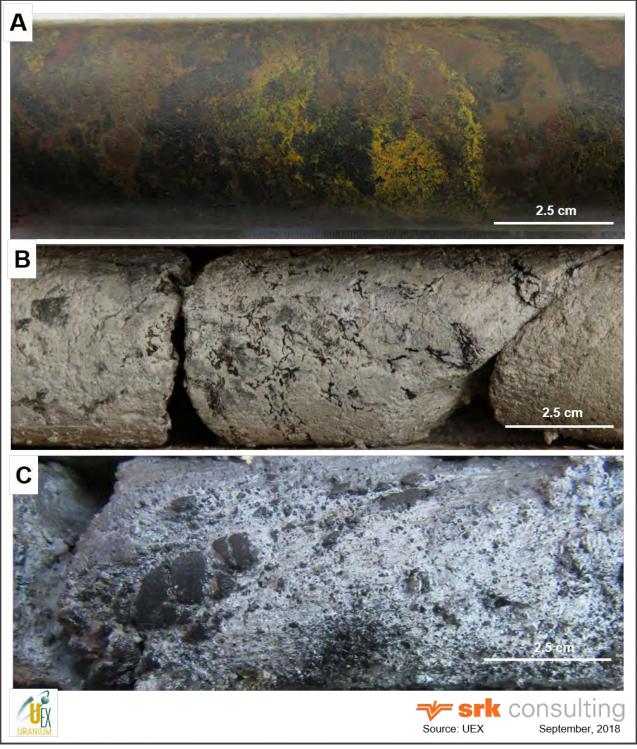
### **Paul Bay Zone**

The Paul Bay Zone is an 80-metre-long mineralized body that plunges for at least 200 metres to the southwest from the unconformity and follows the dip of the faulted Lower Wollaston Domain graphitic metasedimentary rocks. Interpreted cross-sections across the Paul Bay Zone are provided in Appendix B. The mineralization is concordant with the basement foliation striking 030 degrees with a dip of 46 degrees and plunges in a south-to-southeast direction with a rake of 110 to 120 degrees. The true thicknesses of the mineralized intervals range from 5 to 11 metres.

Mineralization at Paul Bay is hosted within faulted pelitic gneiss that forms the base of the hanging wall sequence of the Wollaston Group metasedimentary rocks. This fault zone is typically up to 40 metres thick, within or below a graphitic pelitic gneiss. The hanging wall sequence is a mix of non-graphitic and graphitic pelite and semi-pelite paleosome, and discontinuous intervals of pegmatite and granite textured neosome with a generally granitic composition. The footwall sequence of rocks at Paul Bay are quartz-rich to quartz-flooded semi-pelite to psammite gneiss and pegmatite-textured neosome. Quartzite, where present, is always below the mineralization.

The mineralized zone is characterized by intense fracturing and brecciation and has a bleached argillic alteration halo extending up to 35 metres above the mineralization. The best mineralization discovered to-date at Paul Bay, is in hole CB-004 with 9.61 percent  $U_3O_8$  over 8.5 metres. Holes CB-092 averaged 8.07 percent  $U_3O_8$  over 11.3 metres and CB-093 averaged 8.65 percent  $U_3O_8$  over 9.4 metres.

The high-grade lens occurs within a wide lower-grade halo as a semi-massive to massive uraninite hydrothermal breccia replacing the host semi-pelitic to pelitic gneiss. The mineralization does not extend into the quartz-rich footwall rocks and the associated alteration grades weaker with depth.



#### Figure 6: Uranium Mineralization in NQ Core at the Christie Lake Uranium Project

- A: High grade massive uranium mineralization (drill hole CB-109)
- B: Uranium mineralization occurring as tiny stockwork veins in a clay matrix (drill hole CB-111A)
- C: Uraninite/pitchblende clast in an argillized clay matrix (drill hole CB-109)

### Ken Pen Zone

The Ken Pen Zone is approximately 260 metres to the northeast from the Paul Bay Zone, striking in a northeast direction concordant with the Yalowega Trend Fault. Interpreted cross-sections of the Ken Pen Zone are provided in Appendix B. Ken Pen has a shorter down-dip extension compared to the 200-metre plunge length of the Paul Bay Zone.

The lithologies at Ken Pen are similar to those at Paul Bay. The basement is a semi-pelitic to pelitic gneiss and pegmatite textured anatexite which overlies faulted graphitic pelite and semi-pelite gneiss above the quartz-rich lithologies with intervals of psammite and quartzite. The main fault zone is characterized by breccias, fault gouge, and fracturing focused within and below the graphitic units.

The main fault zone is breccia, gouge, and fracturing that are focused within and below the graphitic units. At the Ken Pen Zone, the fault is widely distributed, and the faulted graphitic rocks are above the base of the fault and where the best basement-hosted uranium mineralization is found, spatially separated from the graphitic rocks. The fault divides the hanging wall semi-pelitic gneisses from the more quartz-rich footwall lithologies.

Uranium mineralization is associated with the unconformity in the southern part of Ken Pen and more basement-hosted in the north. The unconformity lens and basement mineralization lens diverge along strike to the northeast from CB-100A. The plunge of the basement mineralization is parallel to the foliation and controlled by the Yalowega Fault. The rake of the uranium mineralization on the fault is 110 to 120 degrees, which is the same orientation at the Paul Bay Zone. Bleaching and argillic alteration form a halo around the associated uranium mineralization. Hydrothermal hematite alteration is associated with unconformity mineralization and less so with the basement-hosted mineralization. Uranium mineralization associated with the breccia in the lower part of the fault sequence can occur up to 40 metres below the graphitic unit.

## **Ōrora Zone**

The Ōrora Zone is located approximately 360 metres northeast of the Ken Pen Zone. Ōrora uranium mineralization is unconformity-related and occurs approximately 420 metres below surface and can extend up to 40 metres into the basement rocks along the Yalowega Fault. Interpreted cross-sections of Ōrora are provided in Appendix B.

The lithologies at Ōrora are the same as at Paul Bay and Ken Pen; pelite and semi-pelite with pegmatite-textured neosome in the hanging wall of the graphitic pelite. The rocks in the immediate footwall of the graphitic pelite are generally pelitic with minor bands of amphibolite and calc-pelite. Narrow intersections up to a few metres wide of quartzite occur below the basement hosted mineralization.

The main control on uranium mineralization at Ōrora is the unconformity subcrop of the lower boundary of the Yalowega Trend Fault and is coincident with or below the graphitic pelite. Uranium mineralization is associated with intense argillic alteration of the lower sandstone and basement rocks. High-grade uranium mineralization within Ōrora is controlled by north-south fabrics developed within the fault. The high-grade core of Ōrora is developed along approximately 75 metres of strike between grid lines L68+00N and L67+25N. The Yalowega Trend Fault is approximately 12 to 36 metres wide at Ōrora and movement along the fault is commonly distributed over multiple slip planes.

The best uranium mineralization at Ōrora is associated with breccias in the lower part of the Yalowega Trend Fault Zone. Intense argillization and bleaching that overprints paleo-weathering

forms a halo about Ōrora. Uranium mineralization at the unconformity in the basement is commonly found as fracture coatings, replacement of breccia matrix and clasts, replacement along foliation planes outboard of fractures, gouges and breccias, and disseminations within strongly clay altered basement rocks. Secondary hematite commonly stains the clay minerals a deep orangish-red.

## 6.4 Alteration

Alteration haloes associated with mineralized zones at Christie Lake are typical of Athabasca Basin uranium deposits and are dominated by silicification, hematization, precipitation of drusy quartz and illitization with massive quartz dissolution and intense fracturing. In the basement rocks the alteration typically consists of hydrothermal illitization, chloritization and the development of dravite, which are superimposed upon and commonly obliterates the paleoweathering profile.

In sandstone, the alteration is dominated by silicification which occurs as drusy quartz most commonly observed distal from the mineralized zones and controlling faults. Argillization in the form of illite and chlorite occurs closer to uranium mineralization and can be strong enough to obscure the host rock protolith. Strong hematization is often coincident with uranium mineralization and occurs as blebby replacement of minerals in strongly clay altered rocks. Quartz dissolution is found throughout mineralized intervals and can be intense immediately above uranium mineralization in fractured sandstone. Sandstone just above the unconformity is generally structurally disrupted, clay enriched (kaolinite, illite, and sudoite) and locally uranium anomalous. The elements lead, nickel, cobalt, vanadium, molybdenum, bismuth and gold are anomalous within mineralized areas, particularly with the Ken Pen Zone and Ōrora Zone, which have unconformity associated uranium mineralization. In the basement, hydrothermal alteration can include strong hematization, limonitization, chloritization, illitization, and dravite which can obscure the textures and mineralogy of the protolith.

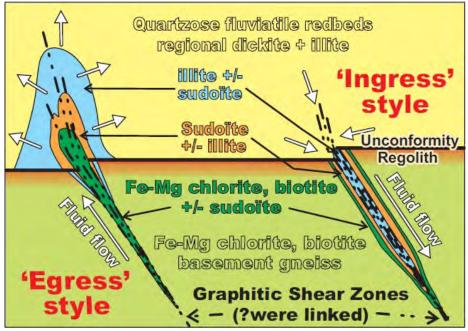
# 7 Deposit Types

Uranium mineralization at the Christie Lake Project are representative of both unconformity-type and basement-hosted deposits. Uranium mineralization in the Athabasca Basin is generally of Helikian age. Geochronological studies have determined that most deposits were formed in a time interval between 1,330 and 1,380 Ma (Cumming and Krstic, 1992), and as early as 1,590 Ma at the Millennium Deposit (Cloutier et al, 2009) and 1,521 Ma at the McArthur River Mine (Cameco Corporation, 2012) that have ages of remobilization near 1,350 Ma.

Athabasca Basin uranium deposits generally occur at the unconformity between the lowermost Athabasca Group and the underlying crystalline Aphebian Wollaston Group metasedimentary basement rocks. Mineralization is commonly localized to the intersection of major faults and the unconformity, or at a paleotopographic basement ridge (Figure 7).

Alteration haloes surrounding the deposits are typically dominated by silicification, hematization, precipitation of drusy quartz and argillization (illitization and chloritization), as well as massive quartz dissolution and intense fracturing. In the basement, hydrothermal alteration consists of illitization, chloritization and the development of dravite, which is superimposed upon and commonly obliterates the previous retrograde and regolithic alterations.

Uranium mineralization is formed as uraninite/pitchblende, often as semi-massive to massive replacement and/or with hydrothermal/chemical breccias within the matrix (Figure 6). Uranium mineralization is often associated with and proximal to brittle graphitic fault structures, which provide a pathway for uranium-bearing fluids. Within the basin, uranium mineralization can be located above, at, and below the unconformity.



**Figure 7: Unconformity Related Deposit Models** Source: Jefferson et al., 2007

Two main end-members of unconformity-related deposits are both structurally controlled. The following two end-members depend on the location of oxidized basinal fluids and reduced basement fluids mixing (Jefferson et al., 2007; Figure 7):

- 1. Polymetallic, Egress style mineralization: Typically hosted by sandstone, in which fluid mixing has occurred at or above the unconformity. Often this style of mineralization is coincident with mineralization that is perched above the unconformity along steeply dipping faults, which can display a paleotopographic ridge of basement rock. Egress style mineralization is often polymetallic, and the uranium is associated with a number of accessory elements that include nickel, cobalt, copper, molybdenum, zinc, lead and arsenic.
- 2. Monometallic, Ingress style mineralization: Typically, basement hosted (but can be seen within sandstone), in which fluid mixing occurred below the unconformity. This type of mineralization is often controlled by reverse faulting. Monometallic mineralization is defined by nearly exclusive uranium precipitation.

The Paul Bay, Ken Pen and Ōrora zones have characteristics indicative of unconformity and basement-hosted deposits. All three locations of mineralization (at, above and below the unconformity) are observed at the Christie Lake Project.

## 8 Exploration

In the mid-1980 under PNC's operatorship, the Christie Lake Project was comprised of three geographically separate project areas within the southeastern Athabasca termed areas A, B, and C. Area B was staked in 1985 and 1986 comprised of three claims; CBS 6163, CBS 7610, and CBS 8027 that covered the area of the current day Christie Lake Project. With the discovery of Paul Bay at Yalowega Lake in 1989, three additional claims were added (S-101720, S-101721, and S-101722), completing the current mineral claims that comprise the Christie Lake Project.

A summary of exploration activity conducted on the Christie Lake Project is presented in this section of this technical report. A more detailed discussion on exploration activity on the Christie Lake property is documented in the previous exploration-focussed technical report (UEX, 2017).

## 8.1 PNC (1985 – 2000)

Initial exploration work comprised of ground geophysical surveys following the staking of Christie Lake Area B. Gravity and time domain electromagnetic (TDEM) surveys with fixed loop and stepwise moving loop configurations were initiated in 1986 with and completed in 1987.

Fixed loop TDEM with varying survey configurations comprised the primary ground geophysical method. Targeting the EM anomalies defined by the fixed loop survey, three drill holes were drilled in 1988. Over the subsequent nine years another 92 drill holes were drilled, supplemented by geochemical sampling programs (Table 4) and geophysical surveys (summarized in Table 5 and Table 6). Several attempts were made to use moving loop methods and electromagnetic soundings to refine the location of conductive responses in the subsurface. Other small or test surveys using very low frequency (VLF) and horizontal loop electromagnetic (HLEM) methods were also attempted, but not widely applied on the project due to the depth to the target.

Airborne frequency domain (HEM) and TDEM coupled with magnetic data surveys were completed in 1992. Lake sediment sampling was completed in 1987 and followed-up by a soil sampling program in 1988. Almost all the ground TDEM surveys at Christie Lake were performed with EM-37 or PROTEM equipment, manufactured by Geonics Limited of Toronto, Ontario. Grid preparation (Figure 8) activities are summarized in Table 5, including the details of other laboratory test work of drill hole samples.

Element	Max (ppm)	Target Association	Comments
Uranium	2.9	Northern Conductive Zone	Correlates with zinc, copper, and nickel with highest values spatially related to conductivity response in northwestern part of grid
Lead	28	Northern Conductive Zone	Highest values in northwest corner of grid
Zinc	143	Northern Conductive Zone	Highest values in northwest corner of grid
Copper	14	Northern Conductive Zone	Highest values in northwest corner of grid
Nickel	12	Southern Target	Highest values in south, other high values are clustered in the northern part of the grid

Table 4: Sediment	Sampling	Results for t	he Christie I	ake Project (	(1987)
	Camping	incounto ior i			1301

	Year										Tata		
Type of Work —	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	Tota
Airborne Geophysics (km)													
EM/Magnetic (GEOTEM)							452.3						452.3
HEM (DIGHEM)							553.0						553.0
Ground Geophysics													
HLEM									5.0				5.0
VLF									4.0				4.0
Gravity	40.0												40.0
EM-37 Fixed Loop		98.3	9.4	27.2		153.8	49.8		126.2			102.0	566.7
EM-37 Sounding / Moving Loop		8.0	3.6	11.6					1.0				24.2
EM-37 Stepwise Moving Loop											97.0		97.0
Downhole PEM (holes)				2									2
Geochemical Surveys (samples)													
Soil			297										297
Lake Sediment		63											63
Core Samples			155	447			888	593	725	730	509	306	4,353
Diamond Drilling													
Number of Holes			3	6			14	15	20	19	13	5	95
Meterage			1,503.3	3,166.9			6,666.0	6,651.0	9,407.0	10,022.0	6,825.0	2,796.0	47,037.2
Other Lab Work (samples)													
XRD				9			39	23	6	24	28		129
Petrography			10	36			14	27	46	2	2		137
U-Pb Dating				1									1
Specific Gravity							371	113	200				684
Grid Preparation													
Line cutting		77.8	22.0	31.0		88.3	28.6		94.2		68.4	51.2	461.5
Refurbishment		16.0	51.0	10.0		38.8	44.2		31.8			61.4	253.2

#### Table 5: Summary of Non-Drilling Exploration Work Completed by PNC on the Christie Lake Uranium Project (1986-1997)

#### Table 6: Summary of Ground TDEM Surveys – 1986 to 1997

Year Contractor	Equipment and	Loop Size	Number of	Centre of Loop	Station Interval	Number of		Names or	Conductor	
	Methodology	(m)	Loops	Soundings	(m)	Components	Profiles	Number of Conductors	Attributes	
1986 MPH	EM-37 Fixed Loop	400x800	11	10	100	2	75.0	B1, B2, B3, B4, B5, B6, +2	14 km strike length moderate to strong anomalies	
	EM-37 Fixed Loop	400x800	3	3	100	2	13.3	B1, B2, +1	5.8 km total strike length moderate to strong anomalies	
1987 MPH	EIM-37 FIXED LOOP	400x400	6	6	100	2	6.0	0	No anomalies	
	EM-37 Moving Loop	400x400	37	37	50	1	8.0	1	2.3 km strike length moderate to strong anomalies	
988 Quantec	EM-37 Fixed Loop	800x800	2	0	50	2	9.4	B3, B4	4.6 km total strike length weak anomalies	
1900 Quantec	EM-37 Moving Loop	400x400	17	17	50	2	3.6	B5	Broad, shallow zone indicated	
	EM-37 Fixed Loop	400x800	4	0	50	2	27.2	B1, B2, AZ-1, AZ-2	7.4 km total strike length weak to moderate anomalies	
1989 Geoterrex	EIM-37 FIXED LOOP	800x1600	4	0	50	2	21.2	B1, B2, AZ-1, AZ-2	1.4 KIII total Suike lengui weak to moderate anomalies	
	EM-37 Stepwise Moving Loop	400x400	7	7	50	1	11.6	0	Experimental survey only weak anomalies detected	
991 Geoterrex	EM-37 Fixed Loop	400x800	16	0	50	2	152.0		6.9 km total strike length moderate to weak anomalies	
1991 Geolenex	EM-37 FIXed Loop	700x1400	4	0	50	2	153.8	D1, D2-1, D2-2, D2-3, 3, W11, W2, W3	0.9 km total suike length moderate to weak anomalies	
992 Quantec	EM-37 Fixed Loop	400x800	5	0	50	2	49.8	Paul Bay, Ken Pen	2.5 km total strike length moderate anomalies	
1004 Contorroy	EM-37 Fixed Loop	800x1600	9	0	50	3	126.2	CB94-A, CB94-B, CB-94-C	8.2 km total strike length moderate anomalies	
1994 Geoterrex	EM-37 Moving Loop	50x50	40	40	25	1	1.0	0	-	
996 Geoterrex	EM-37 Stepwise Moving Loop	800x800	24	24	50	3	97.0	CB94-A, CB94-B, +4	Reconnaissance only moderate anomalies	
997 Geoterrex	EM-37 Fixed Loop	800x1600	13	0	50	3	102.0	CB97-D, CB97-E, +6	17.3 km total strike length moderate to weak anomalies	

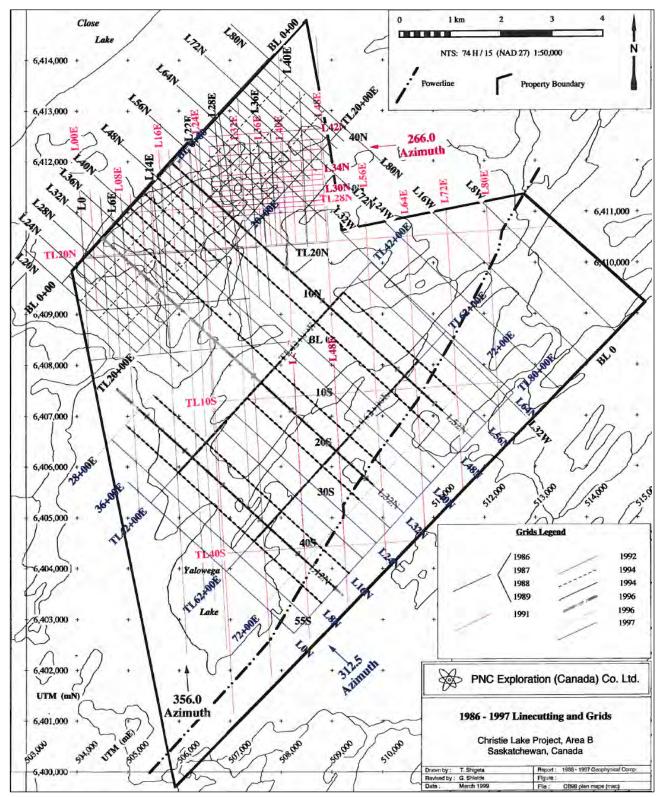


Figure 8: Line-cutting and Grids on the Christie Lake Uranium Project by PNC (1986-1997) Source: Shields, 1999

#### 8.1.1 PNC Ground Geophysics (1986 – 1997)

The most effective EM survey for the Yalowega Trend was the 1994 fixed loop TDEM survey along the northwestern part of the property (Figure 9). The objective of the survey was to delineate possible northeast-striking conductors that were inferred from previous surveys along the Yalowega Trend (Iida et al., 2000a). Geoterrex performed 126.2 kilometres of measurements using a Geonics EM-37 system with 9 loops measuring 800 by 1,600 metres (Table 6). Three fairly coherent but weak conductors were detected. Conductors CB94-A and CB94-B strike in a northeast direction for more than 2 kilometres each. Conductor CB94-C appeared to strike in a northeast direction for about 3 kilometres and is associated with the general trend of the mineralization. Discrepancies in anomaly locations between opposing loops in the 1994 survey were minimal.

Prior to 1994, fixed and moving loop surveys were performed at orientations not optimal to correctly resolve the conductivity associated with the Yalowega Trend. A complete description of all surveys conducted between 1986 and 2000 is available in the 2016 technical report on the Christie Lake Project (Perkins et al, 2017).

The conductors in the southeastern part of the project were defined during the 1997 fixed loop TDEM survey (Figure 10). The main objective was to define the strike extent of the anomalies detected in the central and southern parts of the property during the 1996 stepwise moving loop TDEM survey (Tsuruta and Shields, 2000). Another objective was to extend conductor CB94-C detected in 1994 to the southwest of the Paul Bay Zone (Iida et al., 2000a). Geoterrex performed 102.0 kilometres of measurements using 13 loops measuring 800 by 1,600 metres (Table 6). Two Protem-37D (digital) systems with 3-D receiver coils and a Geonics EM-37, 2.5-kilowatt transmitter were used for the survey. Only weak anomalies defined a vague trend that may have extended conductor CB94-C. However, two new conductor axes were defined in the south-central part of the property.

Conductor CB97-D was detected on all lines from 28+00N to 64+00N and was estimated to be at least 4.0 kilometres long. This appeared to confirm and delineate the conductors detected with the stepwise moving loop lines 32+00N and 52+00N surveyed in 1996. Conductor CB97-D appeared to be open to the northeast. An extension to the southwest may have been detected by loops 97K and 97L. Conductor CB97-E was detected with loop 97M and was estimated to be about 1.2 kilometres long. Several other smaller and weaker trends were also detected, many of which appear to confirm other 1996 anomalies.

Between 1987 and 1997 eight ground TDEM surveys of various configurations were completed over the Christie Lake Project. A compilation of all the conductors interpreted from every survey is presented in Figure 11. Although potentially complex, this swarm of conductive responses is useful as it delineates the prospective conductive corridors on the project and suggests the that the southerly northeast-southwest trend is also worthy of an assessment for uranium mineralization.

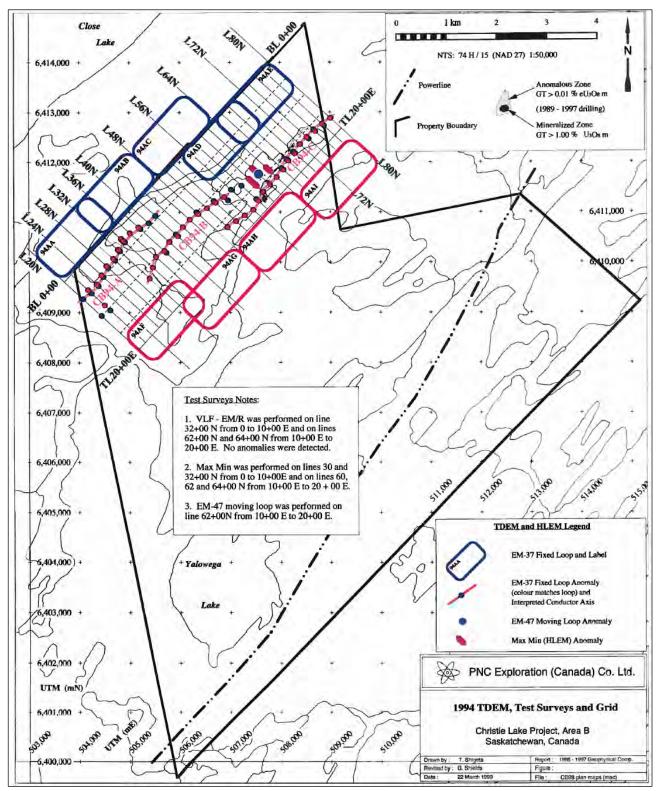


Figure 9: TDEM Surveys and Grid on the Christie Lake Uranium Project by PNC (1994) Source: Shields, 1999

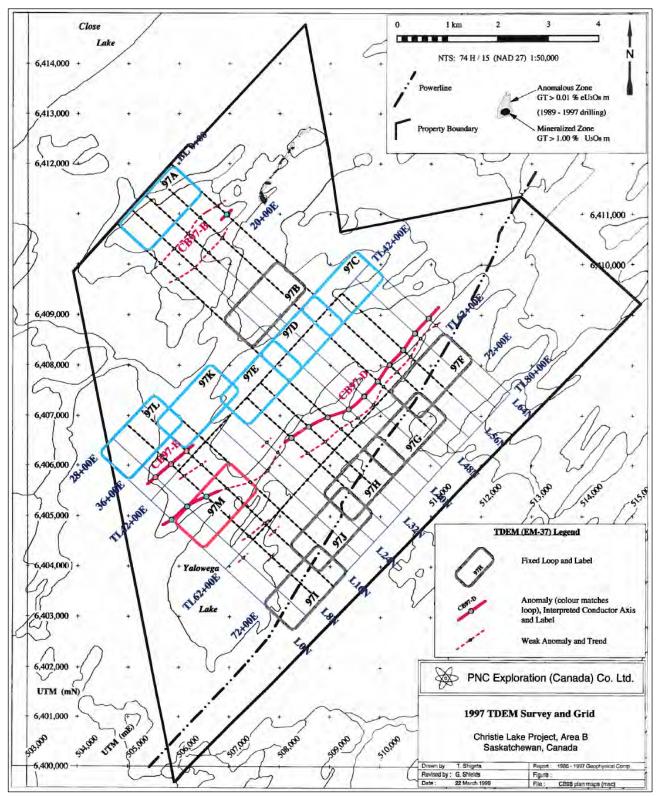
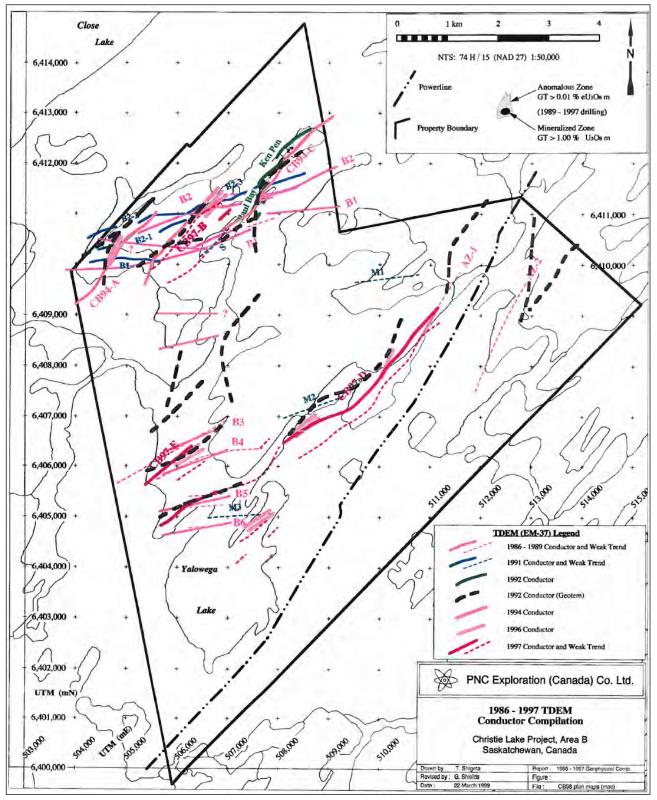


Figure 10: TDEM Survey and Grid on the Christie Lake Uranium Project by PNC (1997) Source: Shields, 1999



# Figure 11: Compilation of 1986-1997 TDEM Conductors on the Christie Lake Uranium Project Conducted by PNC

Source: Shields, 1999

#### 8.1.2 PNC Airborne Geophysics (1992)

#### **1992 GEOTEM TDEM and Total Magnetic Field Survey**

Airborne GEOTEM TDEM and total magnetic field surveys at Christie Lake Area B were flown in 1992 by Geoterrex Ltd. of Ottawa, Ontario for a total of 452 kilometres (Shields, 1999). Line spacing was either 200 or 400 metres, covering the whole property. The surveys were performed to delineate conductors and structures and to map alteration and lithology.

The poor decays represented by the GEOTEM TDEM channels were influenced by conductive overburden. This resulted in the failure of attempts to generate channel ratio or time constant maps. The instrumentation was thought to be approaching its maximum depth of investigation in this area. However, some useful information appeared to be present in the early channels. Several conductors were indicated by the early channel, EM2 data (Figure 12). The conductors were believed to be graphite in the basement. However, other sources such as shallower and possibly related structure and/or alteration in the sandstone also seemed possible.

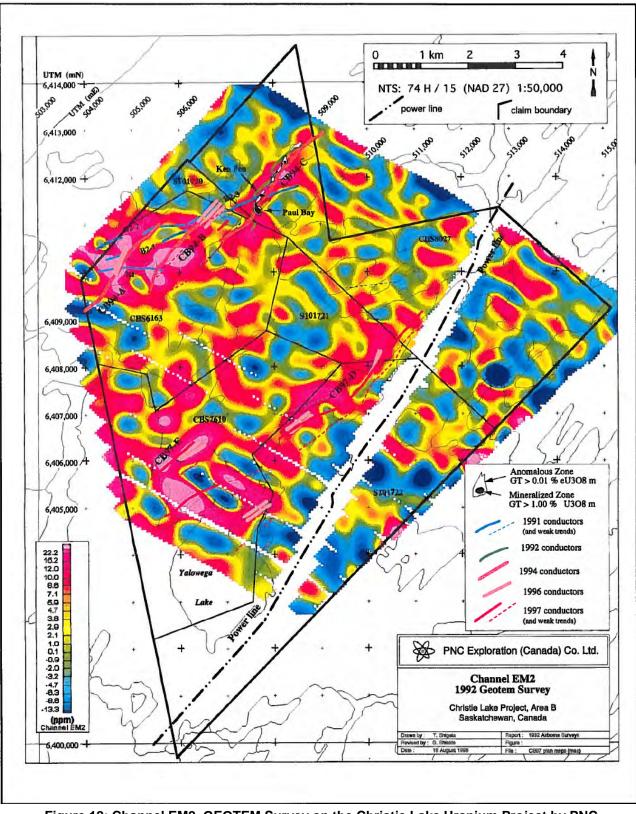
Areas of high vertical magnetic gradient in the northwest and southeast parts of the property were interpreted to represent granitic basement rock. Areas of low vertical magnetic gradient were interpreted to represent metasedimentary basement rock. However, an inverse correlation between the radar altimeter and total magnetic field data indicated the possibility of magnetically susceptible overburden in this area. Therefore, even a moderate vertical magnetic gradient was thought to represent metasedimentary basement rock.

#### 1992 DIGHEM FDEM, VLF and Total Magnetic Field Survey

A total of 553 kilometres of airborne frequency domain electromagnetic (FDEM), very low frequency electromagnetic (VLF EM) and total magnetic field surveys were flown in 1992 at Christie Lake by DIGHEM of Toronto, Ontario (Shields, 1999). The DIGHEM survey consisted of 100-metre spaced lines that covered the western two thirds of the property (Figure 13 and Figure 14). The airborne surveys were performed to delineate structures and to map alteration and lithology.

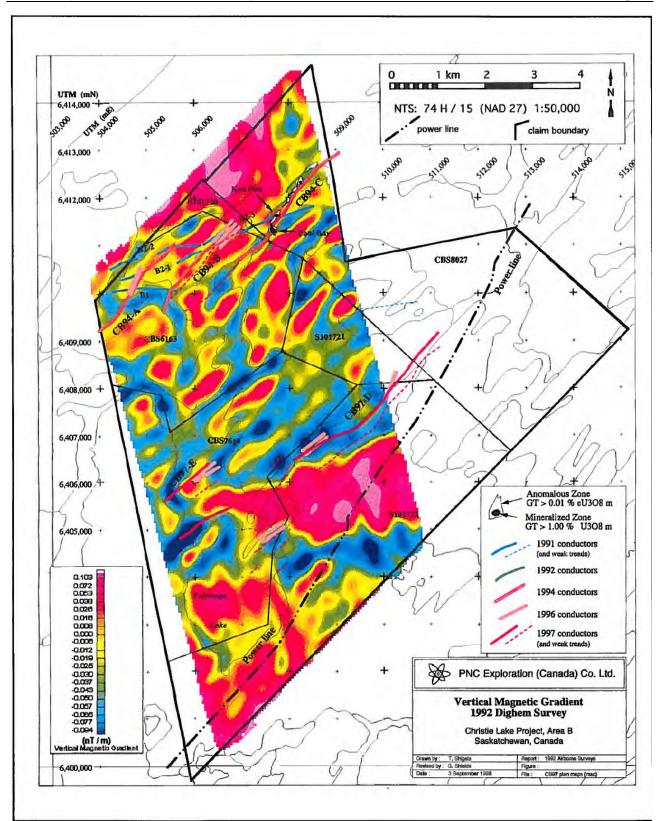
Conductive overburden was indicated in many places by the DIGHEM 7200 hertz apparent resistivity data. This pattern was consistent with the on-time channel EM20 data collected with the GEOTEM survey. Similarly, only clay-rich lake sediments and overburden appeared to be outlined. The DIGHEM resistivity data revealed more detail than the GEOTEM on time data, possibly due to the closer line spacing and the higher frequency employed. However, neither of these data sets appeared able to delineate discrete basement conductors or structures in the sandstone.

The VLF EM total field data had anomalies that generally appeared to correlate with lakes, but some in the western and northwestern parts of the property also correlated with ground TDEM conductors. The calculated skin depth of the VLF method, given a ground resistivity of approximately 1,000 ohm-metres, was also only about 100 metres. If somewhat shallow, VLF anomalies correlated with presumably very deep basement conductors, then a probable association with structure and alteration in the intervening sandstone was speculated. As with the other EM data, a review of previous drill hole data was suggested to confirm this association before a more detailed interpretation of the VLF data took place.



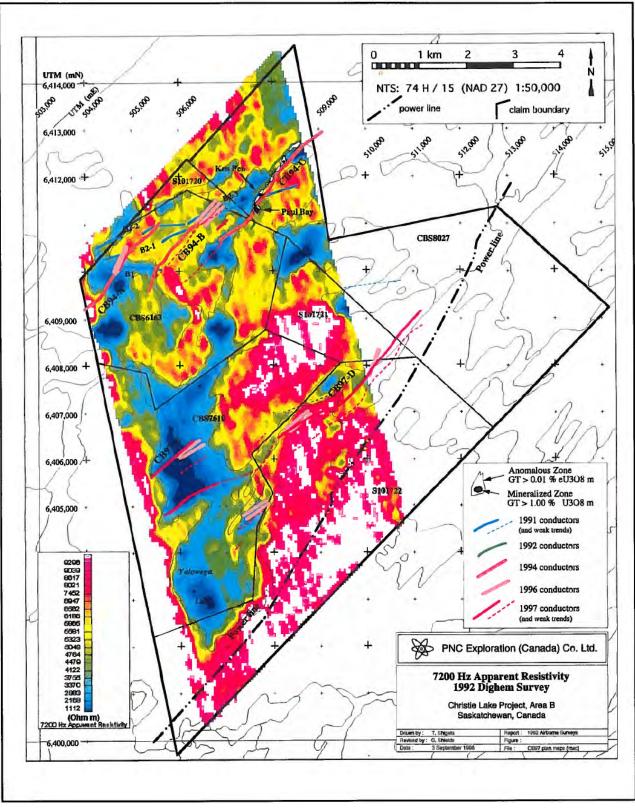
# Figure 12: Channel EM2, GEOTEM Survey on the Christie Lake Uranium Project by PNC (1982)

Source: Shields 1999



# Figure 13: Vertical Magnetic Gradient, DIGHEM Survey on the Christie Lake Uranium Project by PNC (1992)

Source: Shields, 1999



# Figure 14: 7200 Hertz Apparent Resistivity, DIGHEM Survey on the Christie Lake Uranium Project by PNC (1992)

Source: Shields, 1999

#### 8.1.3 Sediment Sampling

A total of 67 organic rich lake sediment samples were taken from claims CBS 6163, CBS 7610, and CBS 8027 during March 1987. Samples were collected with a Hornbrook sampler through holes drilled in the ice with a motorized ice auger. Sample density ranged from one sample over 0.3 square kilometres throughout the three claim blocks to one sample over 0.02 square kilometres for a detailed survey in a lake lying over the northern conductive zone. The total of 67 samples includes 4 split duplicate samples.

Analysis of lake sediment samples indicated anomalism in the northwest corner of the sample grid at the northern tip of Yalowega Lake, generally associated with a northeast-southwest conductive trend.

#### **1988 Soil Sampling**

As a follow-up to the sediment sampling in the winter of 1987, a small soil sampling program was undertaken in the northern part of the B1 and B2 conductor are on claims CBS 6163, CBS 7610, and CBS 8027. A total of 297 samples were taken at 100-metre stations on lines spaced 200 to 800 metres apart. All samples were analyzed for copper, lead, zinc, nickel and uranium. Assay results up to 2.9 ppm uranium were obtained but the program was generally unsuccessful in delineating any trends consistent with the lake sediment anomalies and conductive trends identified earlier that year.

## 8.2 JCU (2000 – 2016)

JCU did not perform any exploration activity in the period 2000 to 2016.

## 8.3 UEX (2016 – 2018)

UEX has conducted 31,065.1 metres of core drilling in 81 drill holes along the Yalowega Trend between Paul Bay and the northern property boundary between 2016 and 2018.

## 8.4 Exploration Targets

The exploration potential of the Yalowega Trend is largely related to the unconformity subcrop of graphitic metasedimentary rocks that have been faulted by syn- and post-Athabasca sandstone deformation events. A proxy for this type of rock at the unconformity is the conductors that are inferred from various configurations of electromagnetic surveys. The P2 conductive trend north of the McArthur River Mine appears to extend onto the Christie Lake claims is largely untested beyond the area between the Paul Bay and Ōrora zones. This fertile trend is the most prospective on the property and is the focus of future exploration work. Other northeast-southwest conductive trends within the project area have not been tested by drilling.

## 9 Drilling

Core drilling on the Christie Lake Project has been the principal method of exploration and delineation of uranium mineralization after initial geophysical surveys. Between 1988 and 1997, PNC conducted multiple drilling campaigns totalling 95 drill holes (47,040.4 metres). One drill hole was drilled by SMDC in 1988 near the southern conductor trend (479 metres). PNC suspended exploration on the Christie Lake Project in 1997. In 2016 UEX resumed exploration drilling on the Christie Lake Project, which involved the completion of 81 drill holes (31,065.1 metres).

In total, 177 drill holes (78,585 metres) have been drilled on the Christie Lake Project to date, 152 of which were completed to target depth. A breakdown of drilling by period and company up to December 2018 is given in Table 7 and shown in Figure 15. A full summary of characteristics for all drilling on the Christie Lake Project since 1988 is presented in Appendix C.

## 9.1 Historical Drilling (Pre-1997)

Historical drilling completed by PNC in the area of the Christie Lake property is tabulated in Table 7.

A total of 96 drill holes totalling 47,519 metres were drilled, 95 by PNC and one by the Saskatchewan Mining Development Corporation (SMDC), a provincial crown corporation and predecessor company to Cameco Corporation, between 1988 and 1997 (Figure 15). Of these, 75 holes were drilled to test the mineralization-associated with the CB94-C conductor. The hole collared by SMDC (MAC-189) targeted the southern conductor to evaluate the prospective nature of this trend.

The discovery hole for uranium mineralization on the Christie Lake Project was at the Paul Bay Zone in 1989 when drill hole CB-04 intersected 9.38 percent  $U_3O_8$  over 8.0 metres at 488.0 metres, approximately 70 metres below the unconformity in graphite enriched metasedimentary rocks. Drilling resumed in 1992 and identified a 1.8-kilometre-long north-easterly trend with anomalous uranium coincident with the CB94-C conductor, now known as the Yalowega Trend. Mineralization was identified along this trend within two mineralized zones separated by 260 metres, the Paul Bay and Ken Pen zones. The depth of the unconformity intersected in these holes along the Yalowega Trend is approximately 420 metres.

Zone		SMDC/ PNC				PNC					UEX		Total
		1988	1989	1992	1993	1994	1995	1996	1997	2016	2017	2018	
Paul Bay	No.	-	4	13	4	-	1	1	3	20	6	-	
Гайі Бау	metres	-	2,154	6,160	1,555	-	503	611	1,752	9,018	2,445	-	
Kan Dan	No.	-	-	-	9	2	1	1	1	12	3	-	
Ken Pen	metres	-	-	-	4,156	1,046	506	521	552	3,425	1,284	-	
Ōrara	No.	-	-	-	-	-	-	-	-	-	29	1	
Orora	metres	-	-	-	-	-	-	-	-	-	9,022	507	
Regional	No.	4	2	1	2	18	17	11	1	-	-	10	
Targets	metres	1,983	1,013	506	940	8,365	9,012	5,693	492	-	-	5,365	
Tatal	No.	4	6	14	15	20	19	13	5	32	38	11	177
Total	metres	1,983	3,167	6,666	6,651	9,411	10,020	6,825	2,796	12,443	12,751	5,872	78,585

#### Table 7: Summary of Drilling on the Christie Lake Uranium Project

No. = Number of drill holes

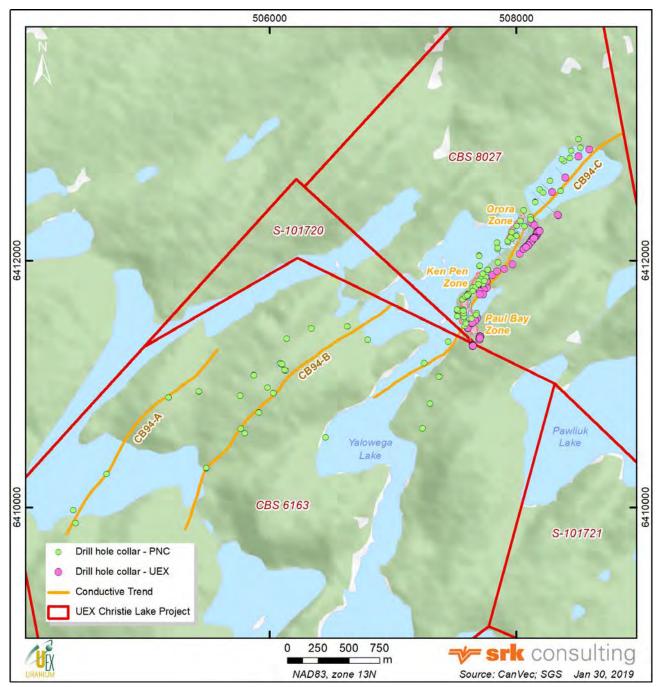


Figure 15: Map Showing the Distribution of Drilling on the Christie Lake Uranium Project

Significant basement-hosted uranium mineralization was also intersected along strike and northeast of the Ken Pen Zone in the Shoreline, Otter Creek, and East End Lake areas. These holes are indicated in Table 8.

Several drill holes in the Northwest Area on conductors CB94-A and CB94-B (Figure 15) have encountered uranium mineralization and have not been adequately followed-up. The best hole in the area is CB-048 that grades 0.25 percent  $U_3O_8$ , 2.05 percent cobalt, and 2.32 percent nickel over 1.5 metres in faulted graphitic pelite. In hole CB-068, anomalous radioactivity of 0.02 percent  $U_3O_8$  over 1.6 metres was intersected above the unconformity at 455.3 metres, and 0.07 percent  $U_3O_8$  over 0.5 metres in graphitic basement rocks at 529.2 metres. Due to core loss, these values could not be confirmed with chemical assays. The graphitic units were not encountered in several holes to explain the targeted conductors. Notable uranium intersections in core from 1989 to 1997 are summarized in Table 8.

No diamond drilling was completed on the Christie Lake Project between 1997 and 2016.

Drill hole	7	Mineralization	<b>F</b> +	<b>T</b> -*	1		Higher Grac Gra		als Within sections	Lower
ID	Zone	Туре	From*	To*	Length*	U <sub>3</sub> U <sub>8</sub> %-	From*	To*	Length*	U <sub>3</sub> O <sub>8</sub> %
CB-004	Paul Bay	Basement	488.00	496.00	8.00	9.38				
CB-007	Paul Bay	Basement	466.00	467.50	1.50	1.46				
CB-010	Paul Bay	Basement	541.40	560.30	18.90	2.50	544.20 551.20	553.40 553.40	9.20 2.20	4.40 8.70
CB-015	Paul Bay	Basement	548.40	560.40	12.00	0.25	555.90	556.70	0.80	1.90
	<b>y</b>		520.20	520.80	0.60	4.10				
CB-017	Paul Bay	Basement	538.10	547.50	9.40	1.80	539.30 540.80	545.80 541.30	6.50 0.50	2.50 24.60
			526.00	542.00	16.00	0.24				
CB-018	Paul Bay	Basement	566.10	571.80	5.70	0.70	569.30 571.30	570.20 571.80	0.90 0.50	2.30 1.60
CB-019	Paul Bay	Basement	471.50	480.40	8.90	0.20				
	Doul Dov	Decement	423.90	430.90	7.00	1.40	428.50	428.80	0.30	14.00
CB-020	Paul Bay	Basement	442.50	444.50	2.00	4.82				
CB-024	Ken Pen	Basement	444.50	448.00	3.50	0.19				
CB-024	Kenren	Dasement	476.00	482.00	6.00	0.29	489.00	491.00	20.00	0.76
CB-028	Paul Bay	Basement	520.00	535.50	15.50	0.95	528.50 532.50	534.50 533.00	60.00 0.50	2.27 23.70
	Ken Pen	Unconformity	436.5	440.00	3.50	1.41				
CB-032	Ken Pen	Basement	445.0	446.50	1.50	7.81				
	Ken i en	Dasement	470.5	479.50	9.00	4.41	472.50	478.00	5.50	7.08
CB-038	Shoreline	Basement	439.5	441.50	2.00	0.78				
CB-048		Basement	465.0	466.00	1.00	0.25				
CB-049		Basement	428.6	431.50	2.90	1.05	428.90	429.30	0.40	5.88
CB-050	Otter Creek	Unconformity	413.0	422.00	9.00	0.25	420.20	420.30	0.10	10.08
CB-050	Otter Creek	Basement	432.5	445.00	12.50	0.96	438.40 440.50	445.00 441.75	6.60 1.25	1.70 5.94
	Otter	Decement	422.75	423.75	1.00	0.51				
CB-060	Creek	Basement	428.0	428.75	0.75	2.07				
CB-067	East End	Basement	456.5	457.00	0.50	0.39				
CB-078	Otter Creek	Basement	474.6	476.00	1.40	0.22				
	Otter	Pasamant	480.0	480.75	0.75	0.56				
CB-081	Creek	Basement	482.0	484.00	2.00	0.31				
CB-086	Paul Bay	Basement	545.8	555.00	1.80	2.87	553.20	555.00	1.80	2.87
CB-088	Paul Bay	Basement	550.3	551.70	1.40	0.40				

Table 8: Notable Core Intersections on the Christie Lake Uranium Pro	ect (PNC 1989-1997)
Table 0. Notable obje intersections on the offisite Lake of anitality for	

\* Metres

## 9.2 Drilling by UEX (2016 – 2018)

Diamond drilling performed by UEX from 2016 to 2018 comprises 31,065.1 metres in 81 drill holes (Table 7) and off-cut drill holes, of which 63 were completed to the unconformity (Figure 16). Many of the drill holes not completed to the UC were abandoned due to excess deviation of the hole's azimuth or dip. Drilling in 2016 targeted the Paul Bay and Ken Pen zones to confirm continuity of the high-grade mineralization in advance of a mineral resource estimate and explore the potential to expand the uranium resources of the two deposits.

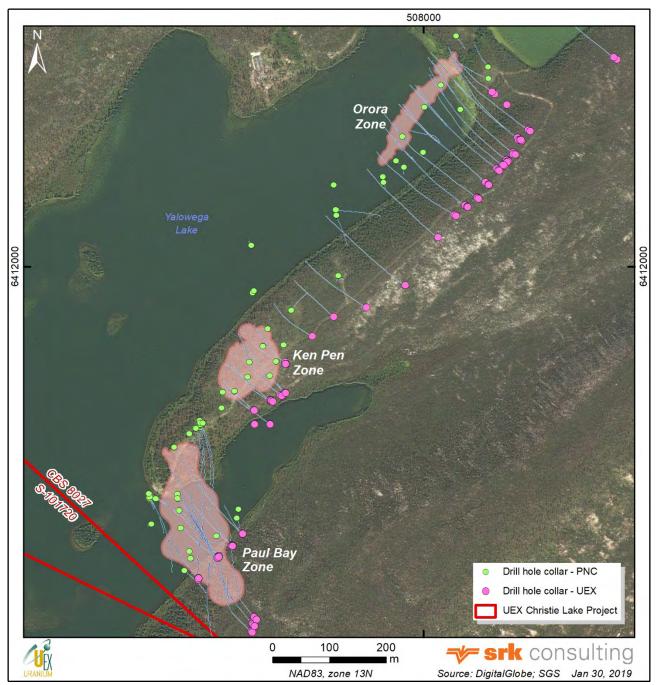


Figure 16: Plan Map of Drilling on the Paul Bay, Ken Pen and Ōrora Zones, Christie Lake Uranium Project

Drilling in 2017 targeted the Shoreline and Otter Creek segments of the Yalowega Trend to the north of the Ken Pen Zone. The 2017 winter drill program was focused on following up on the high-grade intersection of CB-102 at Paul Bay, to test the down-dip extension of and the unconformity between Paul Bay and Ken Pen, and to explore the Yalowega Trend to the northeast of Ken Pen.

Drill hole CB-109 graded 11.5 percent  $U_3O_8$  over 17.7 metres and was the discovery hole for  $\bar{O}$ rora. Subsequent drilling in 2017 yielded more high-grade intersections and defined  $\bar{O}$ rora along strike for approximately 230 metres and a width of up to 35 metres. The summer 2017 program focused on further delineating and extend the footprint of the newly discovered  $\bar{O}$ rora Zone.

The winter 2018 program was six drillholes to target the Yalowega Trend Fault at the north end of  $\bar{O}$ rora and along East End Lake. One hole was drilled to test for the northern extension of  $\bar{O}$ rora on L68+25N (CB-129), targeting the unconformity subcrop of the Yalowega Fault up-dip from CB-111A. CB-129 intersected uranium mineralization that grades 0.19 percent U<sub>3</sub>O<sub>8</sub> over 1.0 metres just below the unconformity and is coincident with the base of the Yalowega Trend Fault.

The summer 2018 drill program consisted of five drill holes focused on the Shoreline area between Ken Pen and  $\bar{O}$ rora (360 metres strike-length) to test the prospective nature of the Yalowega Trend fault at the unconformity. Previous tests had encountered the fault in the basement with anomalous uranium intersections along the trend. Anomalous uranium mineralization was encountered in all drill holes with the best uranium grades occurring in CB-132 with 0.37 percent U<sub>3</sub>O<sub>8</sub> over 11.2 metres at the unconformity.

## 9.3 Surveying

The proposed collar locations of drill holes are spotted relative to known reference points in the field and surveyed by differential GPS system using the NAD83 UTM zone 13N reference datum. The drill holes have a concise naming convention with the prefix "CB" denoting "Christie Lake Area B" followed by the number of the drill hole. In general, most of the drilling was completed on northwest-southeast oriented profiles spaced approximately 25 metres apart.

The trajectory of all drill holes was documented using a Reflex multi-shot instrument at 30-metre intervals down the hole with an initial test taken 6 metres below the casing and a final measurement at the bottom of the hole. The Reflex multi-shot was used in single shot mode to record azimuth and dip at specified intervals.

## 9.4 Core Recovery

At Christie Lake the mineralized zones are moderately to strongly altered and disrupted by fault breccias. In places, the core can be broken and blocky, however, core recovery is generally good with an overall average of 95 percent. Local intervals of up to 5 metres with less than 80 percent recovery have been encountered due to washouts during the drilling process. Where 80 percent or less of a composited interval is recovered during drilling (greater than 20 percent core loss), or where no geochemical sampling has occurred across a mineralized interval, uranium assay grades have been supplemented by radiometric probe data for compositing.

## 9.5 Drilling Procedures

#### 9.5.1 Historical Drilling (Pre-1997)

No information exists regarding the drilling procedures or the sampling methods and approaches employed by PNC on the Christie Lake Project. The core handling procedures at the drill site would have most likely followed industry standards for that time.

The casing was left in select drill holes upon completion. The recovered core from the surface drilling was placed into standard 1.5 metre-long, three-row NQ wooden core boxes. Wooden blocks were used to identify individual drill runs onto which the hole depth (in metres) is recorded. Drill core was stored at PNC's Christie Lake Camp where basement metasediment intersections were stored in core racks and intersections of the overlying Athabasca Group sandstone were stored in cross-stacked piles.

In the summer of 2000, all mineralized intersections and select complete metasedimentary intersections were transferred to AREVA's McLean Lake Mine site for secure long-term storage of radioactive core. In the spring of 2016, UEX personnel verified that a forest fire in 2008 destroyed the core racks and boxes containing the remaining unconformity and metasediment core at PNC's Christie Lake Camp. The majority of the cross-piled Athabasca Group sandstone was unaffected and remains intact.

No drilling was completed on the Christie Lake Project during the period of 1998 to 2015.

#### 9.5.2 UEX (2016 – 2018)

Drilling was carried out by Team Drilling Limited of Saskatoon, Saskatchewan utilizing a single TD 1500 hydraulic rig and ancillary equipment. A drill rig from the 2018 summer drill campaign is illustrated in Figure 17.



Figure 17: Team Drilling Limited Drill Rig During the 2018 Summer Drilling Program

At the beginning of all holes that started from surface, the process involved reaming and securing HW casing into bedrock through the overburden with an HW casing shoe. Drilling through the upper Athabasca sandstone was carried out to an average of 200 metres using HQ rods (65-millimetre diameter) and a 4.0 metre core barrel. Once into the basement rock, drilling proceeded to the end of the hole with NQ rods (48-millimetre core diameter) and a 4.2-metre core barrel. Once completed, casing was left in the holes. From the summer 2017 program and beyond, all holes were cased with NW sized casing and drilled from top to bottom with NQ rods.

Standard steel wedges are also used to create an off-cut hole from any depth of an existing hole. This allows for closely spaced intersections of mineralized zones without having to drill multiple holes. To maintain control of the active drill hole deviation while drilling, drillers utilized standard steel and Clappison-style wedges. This involved placing an angled piece of steel inside the drill hole to deflect the drill bit in a certain direction specified by the geologist. Afterwards the steel was either left in the drill hole (standard wedge) or removed (Clappison wedge) and normal drilling resumed. From the winter 2017 program onward, a directional mud motor was used for added precision during directional drilling.

Recovered core was placed directly into standard 1.5 metre-long, three-row NQ wooden core boxes or standard 1.5 metre-long two-row HQ wooden core boxes. Wooden blocks were used to identify individual drill runs onto which hole the depth (in metres) is recorded. Core was delivered by Team Drilling personnel at the end of every shift and brought to a core handling facility at UEX's Christie Lake Camp.

Drill core was logged by UEX personnel for geotechnical and geological information. Before the core is split for assay, it is photographed, measured for structures, surveyed with a scintillometer, and marked for sampling. Sample selection is guided by the observed geology, radiometric logs, and readings from a hand-held scintillometer. Information was input directly into Datamine's DHLogger logging software and stored in the Datamine Fusion drill hole database software system.

All mineralized and non-mineralized holes within the Paul Bay Zone are cemented from approximately 25 metres below the mineralized zone to approximately 25 metres above the zone. All mineralized and non-mineralized holes within the Ken Pen and Ōrora zones are cemented for the entire basement column to approximately 25 metres above the unconformity.

#### Hand-Held Scintillometer

A hand-held scintillometer measures gamma radiation which is emitted during the natural radioactive decay of uranium and variations in the natural radioactivity originating from changes in concentrations of the trace element thorium as well as changes in concentration of the major rock forming element potassium. The natural gamma measurement is made when a detector emits a pulse of light when struck by a gamma ray. This pulse of light is amplified by a photomultiplier tube, which outputs a current pulse which is accumulated and reported as "counts per second". Count rates are displayed on a scale on the instrument and recorded manually by the technician logging the core. The hand-held scintillometer provides quantitative data only and cannot be used to calculate uranium grades; however, it does allow the geologist to identify the presence of uranium mineralization in the core and to select intervals for geochemical and assay sampling.

Scintillometer readings are taken along the entire length of core recovered as part of the logging process and are averaged for consistent intervals. Zones of uranium mineralization were considered when readings were significantly above the background reading (approximately 500 counts per second depending on the scintillometer being used). In mineralized zones the readings are recorded over 10-centimetre intervals and tied to the run interval blocks. The scintillometer profile is then

plotted on strip logs to compare and adjust the depth of the downhole gamma logs. Core trays are marked with aluminum tags as well as felt marker indicating the sample interval and number.

### 9.6 Radiometric Logging

Down-hole radiometric logging was completed systematically on every drill hole using a Mount Sopris HLP-2375 shielded gamma tool. The tool measures natural gamma radiation using one sodium iodide (NaI) crystal. The tool contains shielding around the crystal to allow more accurate discrimination of mid-range uranium grades.

Uranium mineralized intersections occurring within drill holes were logged a second time using an Alpha Nuclear High Flux (HF) gamma tool. This tool utilizes a pair of ZP-1320 Geiger Mueller tubes and is not as sensitive as a sodium iodide crystal allowing better discrimination of high uranium grade values.

The radiometric tools measure gamma radiation which is emitted during the natural radioactive decay of uranium and variations in the natural radioactivity originating from changes in concentrations of the trace element thorium as well as changes in concentration of the major rock forming element potassium.

Potassium decays into two stable isotopes (argon and calcium) which are no longer radioactive and emits gamma rays with energies of 1.46 million electron-volts. Uranium and thorium, however, decay into daughter products which are unstable (i.e., radioactive). The decay of uranium forms a series of 13 radioactive elements in nature which finally decay to a stable isotope of lead. The decay of thorium forms a similar series of radioelements. As each radioelement in the series decays, it is accompanied by emissions of alpha or beta particles or gamma rays. The gamma rays have specific energies associated with the decaying radionuclide. The most prominent of the gamma rays in the uranium series originate from decay of bismuth 214 (214Bi), and in the thorium series from decay of thallium 208 (208TI).

The natural gamma measurement is made when a detector emits a pulse of light when struck by a gamma ray. This pulse of light is amplified by a photomultiplier tube, which outputs a current pulse which is accumulated and reported as counts per second. The gamma probe is lowered to the bottom of a drill hole and data are recorded at 10-centimetre intervals as the tool travels to the bottom and then is pulled back up to the surface. The current pulse is carried up a conductive cable and processed by a logging system computer that stores the raw gamma count-per-second data.

Downhole total gamma data are subjected to a complex set of mathematical equations, considering the specific parameters of the probe used, speed of logging, size of drill hole, drilling fluids, and presence or absence of any type of drill hole casing. The result is an indirect measurement of uranium content within the sphere of measurement of the gamma detector. A UEX in-house developed spreadsheet, using mathematical equations for high grade uranium developed and used with the permission of Cameco Corporation, converts the measured counts per second of the gamma rays into 10-centimetre increments of percent  $U_3O_8$  equivalent.

The conversion coefficients for conversion of probe counts per second to percent  $U_3O_8$  equivalent uranium grades are based on calibrations conducted at the Saskatchewan Research Council (SRC) uranium calibration pits. Dead-time corrections and potassium-factors are calculated using mathematical relationships comparing cps to known uranium grades.

SRC Laboratory downhole probe calibration facilities are located in Saskatoon, Saskatchewan. The calibration facilities test pits consist of four variably mineralized holes, each approximately four

metres thick. The gamma probes are calibrated a minimum of two times per year, usually before and after both the winter and summer field seasons.

#### 9.7 SRK Comments

In the opinion of SRK, the drilling, core logging and sampling procedures used by UEX are consistent with generally accepted industry best practices and are, therefore, adequate for an advanced exploration project. SRK concludes that the samples are representative of the source materials and there is no evidence that a sampling bias was introduced by the applied drilling and sampling process.

## **10** Sample Preparation, Analyses, and Security

All exploration samples collected by UEX were submitted to Saskatchewan Research Council (SRC) Geoanalytical Laboratory in Saskatoon, Saskatchewan. SRC is accredited to ISO 17025:2005 by the Standards Council of Canada, laboratory number 537, including the determination of  $U_3O_8$  weight percent in solid samples by ICP-OES.

Umpire samples were analyzed at SRC's Delayed Neutron Activation Laboratory, a separate facility located at SRC's Analytical Laboratory in Saskatoon.

SRC is an independent, commercial geochemical laboratory that operates independently from UEX.

## 10.1 PNC (1985 – 2000)

Sediment samples taken by PNC in 1987 weighed approximately 0.5 to 1.0 kilograms, were placed in prenumbered Kraft paper sample bags and dried in a tent for approximately 7 days. Samples were then examined for grain size, organic content and colour (coded according to Geological Society of America rock colour chart). Samples were sent to Chemex Labs, located in North Vancouver, British Columbia and analysed for; uranium by neutron activation, lead, zinc, copper, nickel, and loss on ignition.

Core samples were submitted to SRC in Saskatoon. No further information exists about sample preparation procedures, analytical techniques, and sample security employed by PNC for core samples.

## 10.2 JCU (2000 - 2016)

No documented samples were collected or submitted for analysis by JCU between 2000 and 2016.

## 10.3 UEX (2016 - 2018)

Exploration samples collected between 2016 and 2018 were submitted to SRC in Saskatoon by ground transport. Samples submitted for geochemical and  $U_3O_8$  analyses are shipped by ground transport by UEX personnel using Transport of Dangerous Goods (TDG) protocols by qualified personnel. On arrival at the laboratory, samples are assigned an SRC group number and are entered into the Laboratory Information Management System (LIMS).

All samples received are first sorted by matrix composition (sandstone or basement/mineralized) as indicated on the original sample bags to prevent cross contamination between samples. Next, they are sorted by level of radioactivity using a Radioactivity Detector System (RDS). The samples are classified into one of the following groups:

- "Red Line" (minimal radioactivity) < 500 counts per second
- "1 Dot" 500 1,999 counts per second
- "2 Dots" 2,000 2,999 counts per second
- "3 Dots" 3,000 3,999 counts per second
- "4 Dots" 4,000 4,999 counts per second
- "UR" (unreadable) > 5,000 counts per second

Samples are sorted by ascending sample number order and transferred to matrix designated drying ovens. Once dry, "Red Line" and "1 Dot" samples are transferred for further processing at the main SRC laboratory. Samples considered radioactive ("2 Dots" or higher) are sent to a secure radioactive bunker to await transport by TDG trained personnel to the radioactive facility at SRC for further sample preparation.

All samples are prepared using the same protocol. Crushing is performed utilizing a jaw crusher to over 60 percent passing 2 millimetres. Samples are then split using a riffle splitter to achieve approximately 200-gram subsamples. The excess reject material is stored in its original bag and archived in a plastic pail with identification of the appropriate group number on the exterior.

Grinding of the samples is performed for two minutes to over 90 percent passing 106 microns and confirmed by wet sieving. The material is dried and transferred to a labelled plastic snap-top vial. Once sample pulps are generated, they are returned to the main laboratory to be chemically processed prior to analysis.

Radioactive pulps are returned to a secure radioactive bunker before being transferred to a secure radioactive facility for storage.

All equipment is cleaned between analyses with compressed air. The pots are cleaned with silica sand and compressed air. In the radioactive facility the pots are cleaned with water.

All prepared pulps are analyzed by the ICP-OES package offered by SRC and includes 46 analytes through total digestion and 16 analytes through partial digestion. Nine of these analytes are analyzed by both partial and total digestions and include silver, cobalt, copper, molybdenum, nickel, lead, uranium, vanadium and zinc. When the ICP1 partial digestion value for uranium is greater than 1,000 ppm, the sample pulp is re-assayed for  $U_3O_8$  using SRC's weight percent analysis method. The analytical methods are summarized in Table 9.

Element	Method Code	Detection Limit	Digest	Instrumentation
			J	
46 elements	ICP1 (Total Digestion)	Varies, see Table 11	HF + HNO <sub>3</sub> + HClO <sub>4</sub> hot digest plus HNO <sub>3</sub>	ICP-OES
			leach	
16 elements	ICP1 (Partial Digestion	Varies, see Table 11	HNO <sub>3</sub> + HCl in hot water bath	ICP-OES
U <sub>3</sub> O <sub>8</sub>	ICP4	0.001%	Aqua Regia (3:1 HCI: HNO <sub>3</sub> )	ICP-OES

Table 9: Summary of Preparation and Assay Methodologies

## 10.4 Specific Gravity Data

All samples submitted to SRC for geochemical analysis are also analyzed for density using the pycnometer method (SRC Method – Density 1). The methodology is summarized from the SRC Density 1 method reference document as follows.

"Cleaned, dried and pre-weighed flasks were topped up to volume with deionized water and placed under vacuum then weighed. An aliquot of prepared sample is weighed and transferred to one of the pre-weighed volumetric flasks and then the flask was topped up with water and placed under vacuum until all the air was evacuated. The flasks were made up to volume and reweighed. All weights were entered into one database and the rock density calculated. The temperature of the water was recorded at the time of all measurements and included in the calculations. One in 40 samples is analyzed in duplicate and must fall within specified limits."

## 10.5 Quality Assurance and Quality Control Programs

Quality control measures are typically set in place to ensure the reliability and trustworthiness of the exploration data. These measures include written field procedures and independent verifications of aspects such as drilling, surveying, sampling and assaying, data management, and database integrity. Appropriate documentation of quality control measures and regular analysis of quality control data are important as a safeguard for project data and form the basis for the quality assurance program implemented during exploration.

Analytical control measures typically involve internal and external laboratory control measures implemented to monitor the precision and accuracy of the sampling, preparation, and assaying process. They are also important to prevent sample mix-up and to monitor the voluntary or inadvertent contamination of samples.

Assaying protocols typically involve regularly duplicating and replicating assays and inserting quality control samples to monitor the reliability of assaying results throughout the sampling and assaying process. Check assaying is normally performed as an additional test of the reliability of assaying results. It generally involves re-assaying a set number of sample rejects and pulps at a secondary umpire laboratory.

#### 10.5.1 PNC (1985 - 2000)

PNC did not adopt an analytical quality assurance and quality control program for exploration core sampling. Although the results are not readily available, PNC instituted split duplicate sampling of the sediment sampling program in 1987. Of the total 67 sediment samples taken, approximately 6 percent were duplicate samples. All samples were submitted to ALS.

#### 10.5.2 JCU (2000 - 2016)

JCU did not collect exploration samples and therefore did not require the implementation of an analytical quality assurance and quality control program.

#### 10.5.3 UEX (2016 – 2018)

UEX implemented an analytical quality assurance and quality control program for core samples involving the use of blanks and certified reference material samples. UEX also relies on pulp duplicate testing carried out as part of the internal laboratory quality control program routinely maintained by SRC to monitor analytical results on an ongoing basis.

Due to their radioactive nature, insertion of commercial certified reference material (over a range of  $U_3O_8$  grades) sourced from SRC is performed by at the laboratory instead of the field. Certified reference materials are added to the sample groups by SRC personnel, using standards appropriate for each. SRC has used a total of 7 reference material types between 2016 and 2018, summarized in Table 10. Blank material is inserted in the field and sourced from quartzite with lower  $U_3O_8$  than the sample material, however above the detection limit. The specifications of the control samples used by UEX and SRC are summarized in Table 10. The insertion rate of standard reference materials was approximately one in 40 samples. Field blank samples are inserted at a rate of one in 20 samples.

Standard ID	Expected Value	SD*	Inserts
Low Grade U <sub>3</sub> O <sub>8</sub> (0-1)			
BL-4A & UEX01	0.147	0.0020	201
BL-2A & UEX02A	0.204	0.0040	53
UEX02	0.534	0.0030	3
Total			257
Medium Grade U <sub>3</sub> O <sub>8</sub> (1-5%			
UEX03	1.200	0.0050	4
SCU02 & UEX03A	1.580	0.0325	48
Total			52
High Grade U <sub>3</sub> O <sub>8</sub> (>5%)			
SCU03	5.460	0.1100	1
BL-5	8.360	0.0350	12
Total			13

 Table 10: Summary of Control Samples used by UEX and SRC on the Christie Lake Project (2016-2018)

\* Standard Deviation

#### 10.6 Security

The drilling, sampling and logging are done under the supervision of experienced technical personnel. Logged and sampled drill core from the 2016-2018 drill programs is stored in a core yard at the Christie Lake camp operated in accordance with Saskatchewan government requirements.

#### 10.7 SRK Comments

In the opinion of SRK, the sampling preparation, analytical and security procedures used by UEX are consistent with generally accepted industry best practices and are, therefore, adequate for an advanced exploration project. Sample handling and preparation procedures followed by previous operators are not readily available and difficult to assess. However, after analysis of exploration data, the Qualified Person considers that historical data to be adequate to inform geology and mineral resource models. SRK do however recommend that in addition to pycnometry that specific gravity check determinations also be undertaken by the conventional water immersion method to evaluate the sensitivity to potential sample porosity and alteration. Drilling sampling data collected by PNC during 1988-1997 constitutes approximately 33 percent of all exploration data available for the Christie Lake Project.

# 11 Data Verification

## 11.1 Verifications by UEX

As part of the acquisition process of the Christie Lake Project, UEX conducted a detailed review of all drilling and sampling data for historical work on the property. The review involved the re-logging of available mineralized drill core at the Christie Lake Camp and McLean Lake Mine site including a comparison and clarification of data within the Microsoft Access drilling database.

Historical sampling was unable to be verified as the pulps and rejects collected by PNC are no longer available for analysis. Existing historical core intervals are not sufficient to allow a re-sampling of mineralized intervals.

Tri-Cities Surveys was contracted in 2000 to survey the location of all known collars of historical drill holes on the property. Drill holes which no longer had collars or were drilled on ice pads during the winter were unable to be surveyed.

In 2016 UEX implemented an umpire check assay program where a selection of pulp samples was submitted to SRC's Delayed Neutron Counting (DNC) laboratory, a separate facility located at SRC Analytical Laboratories in Saskatoon, to compare the reproducibility of uranium values using two different methods, by two separate laboratories. SRC's DNC laboratory is not independent of SRC Geoanalytical Laboratory. The DNC laboratory method is specific to uranium and no other elements are analyzed by this technique. The DNC system detects neutrons emitted by the fission of U-235 in the sample, and the instrument response is compared to the response from known reference materials to determine the concentration of uranium in the sample. In order for the analysis to work, the uranium must be in its natural isotopic ratio. Enriched or depleted, uranium can not be analyzed by DNC.

#### 11.1.1 Data Collection and Verification

For the verification of drilling data, UEX relies partly on verification processes built into Datamine's DHLogger software used for logging core and storage of data. Possible data errors such as logging interval overlaps, end-of-hole values greater than the drill hole length, missing information etc., are detected automatically and send error messages within the program.

Duplication and back-up of all data on a central server located in UEX's Saskatoon office. All modifications to the database are tracked, including an audit trail showing what changes were made and by whom.

All historical drilling data has been transferred to this central database structure. All new geological, geotechnical, and scintillometer data collected by UEX since assuming operatorship of the project in 2016 has been collected in the DHLogger system.

UEX collects three independent data sets to track and correlate uranium mineralization, which include scintillometer readings from the drill core, down-hole gamma logging, and assay sampling. These three data sets are then correlated to confirm and verify the location and integrity of mineralized intervals within each drill hole.

## 11.2 Verifications by SRK

#### 11.2.1 Site Visit

In accordance with NI 43-101 reporting standards, Mr. Glen Cole visited the Christie Lake Project from September 19 to 20, 2018 during active drilling, accompanied by Mr. Christopher Hamel and other UEX exploration personnel.

The purpose of the site visit was to review the procedures used to generate and validate the exploration database, review exploration procedures, define geological modelling procedures, examine drill core, interview project personnel, and collect all relevant information for the preparation of a mineral resource model and the compilation of a technical report.

SRK was given full access to relevant data and conducted interviews with UEX personnel to obtain information on the past exploration work, to understand procedures used to collect, record, store and analyze historical and current exploration data.

All aspects that could materially impact the integrity of the exploration database (like core logging, sampling, and database management) were reviewed with UEX staff. SRK was given full access to all relevant project data. SRK was able to interview exploration staff to ascertain exploration procedures and protocols.

SRK examined core from several drill holes and found that the logging information accurately reflects actual core. The lithology contacts checked by SRK generally correlate with information reported in the core logs.

#### 11.2.2 Database Verifications

SRK conducted a series of routine verifications to ensure the reliability of the electronic data provided by UEX. These verifications included checking the digital data against original assay certificates, where possible. SRK audited approximately 5 percent of data generated by UEX and considers the database to be well maintained, with no major errors encountered.

#### 11.2.3 Verifications of Analytical Quality Control Data

SRK analyzed the results of the analytical quality control data produced by UEX from 2016 to 2018 drilling programs. All data were provided to SRK in Microsoft Excel spreadsheets accompanied by original Adobe PDF lab certificates. UEX aggregated the assay results of the external analytical control samples for further analysis by SRK. Control samples (blanks and certified reference materials) were summarized on time series plots to highlight their performance. Paired data (preparation and lab internal pulp duplicate assays) were analyzed using bias charts, quantile-quantile, and relative precision plots. A selection of the charted data is presented in Appendix D. The type of analytical quality control data collected, and their associated performances are discussed below and summarized in Table 11.

	Total	(%)	Value*	SD**	Comment
Sample Count	3,372				
Blanks	75	2.22%			
QC samples	322	9.55%			
BL-4A & UEX01	201		0.147	0.002	CANMET
BL-2A & UEX02A	53		0.502	0.004	CANMET
UEX02	3		0.534	0.003	CANMET
UEX03	4		1.2	0.005	CANMET
SCU02 & UEX03A	48		1.58	0.0325	SRC
SCU03	1		5.46	0.11	SRC
BL-5	12		8.36	0.035	CANMET
Pulp Replicates	140	4.15%			
Field Duplicates	81	2.40%			
Total QC Samples	618	18.33%			

Table 11: Summary of Analytical Quality Control Data Produced by UEX on the Christie Lake Uranium Project

\* Wt% U<sub>3</sub>O<sub>8</sub>

\*\* Standard deviation

In general, analyses of blank samples consistently yielded uranium grades near or below the detection limit of the primary laboratory. The performance of blank samples between 2016 and 2018 is adequate, with no sample contamination detected.

UEX used a total of 7 certified standard reference material types with a variable range of expected uranium values (Table 10). Overall, the performance of these materials is acceptable with only one failure documented.

Approximately 4 percent of samples analyzed by SRC were chosen randomly by laboratory staff for repeat analysis. Rank half absolute relative difference (HARD) plots suggested that 97.9 percent of the duplicate check assays conducted on pulps, had HARD below 10 percent, suggesting good analytical precision at the laboratory.

Reproducibility of core assays from field duplicate material was satisfactory with a correlation coefficient of 0.98. HARD plots suggested that 40.7 percent of the field duplicate check assays conducted had HARD below 10 percent, suggesting poor reproducibility between samples, however, this is not unexpected for field duplicates. A minor positive bias was detected for field duplicate pairs with original sample assays grading over 1 percent  $U_3O_8$ . Given that the available dataset for this type of analytical quality control for core samples was small with 89 sample pairs available for analysis between 2016 to 2018, and only 8 paired samples grading over 1 percent  $U_3O_8$ , this is not considered to be significant.

#### 11.2.4 SRK Comments

In the review of potential risk introduced by historical data, SRK identified a lack of quality control programs documented by previous operators. The sampling data collected by UEX (approximately 1,853 core samples) outweighs historical sampling data collected by PNC (901 core samples), reducing the risk introduced by the use of historical data with uncertain quality.

Although SRK identified a minor positive bias for field duplicate pairs grading over 1 percent  $U_3O_8$ , this is not considered to be significant due to the small sample size and inherent variability expected

for field duplicate samples. UEX is encouraged to monitor these results and continue applying best sampling practices.

Check assaying is normally performed as an additional test of the reliability of assaying results and generally involves re-assaying a set number of sample rejects and pulps at a secondary umpire laboratory on a regular basis. SRK encourages continued diligence in monitoring quality control analysis by adopting a routine of regular umpire assay checks, preferably with a laboratory independent from SRC as part of the ongoing quality control program.

Overall, SRK considers analytical results from core sampling conducted at the Christie Lake Project as globally sufficiently reliable for the purpose of resource estimation. The data examined by SRK do not present obvious evidence of significant analytical bias.

# **12 Mineral Processing and Metallurgical Testing**

No mineral processing or metallurgical testing analyses have been carried out to date on the Christie Lake Project.

# **13 Mineral Resource Estimates**

### 13.1 Introduction

This section describes the methodology and summarizes the key assumptions considered to prepare the geology and mineral resource model. In the opinion of qualified person for the mineral resource, the mineral resource evaluation reported herein is a reasonable representation of the global uranium mineral resources of the Paul Bay, Ken Pen and Ōrora zones of the Christie Lake Project at the current level of sampling. The mineral resources have been estimated in conformity with the widely accepted CIM *Estimation of Mineral Resource and Mineral Reserves Best Practices Guidelines* and are reported in accordance with the Canadian Securities Administrators' National Instrument 43-101. Mineral resources are not mineral reserves and have not demonstrated economic viability. There is no certainty that all or any part of the mineral resource will be converted into mineral reserve.

In July 2018, UEX commissioned SRK to prepare the mineral resource model for the Christie Lake deposit. The last Technical Report available for the property was issued on March 28, 2017 and included only the historic resource estimation results which did not use resource classifications consistent with NI 43-101 guidelines. This section, therefore, summarizes the data, methodology, and parameters considered by SRK to prepare the maiden mineral resource estimation model for the Christie Lake deposit compliant with NI 43-101 requirements.

The construction of the mineral resource was a collaborative effort between UEX and SRK staff. Mr. Trevor Perkins PGeo (APEGS#12067) and Mr. Christopher Hamel PGeo (APEGS#12985), from UEX, provided technical input throughout the geological and mineralized domain modeling process. Dr. Mitrofanov, PGeo (APGO#2824) reviewed the data and constructed the low- and high-grade wireframes. Grade estimation and associated sensitivity analyses, validation checks and mineral resource classification were performed by Dr. Machuca, PEng (PEO#100508889). Mr. Glen Cole (APEGS#26003, APGO#1416) conducted the site visit and provided technical support. The mineral resource estimation was peer reviewed by Mr. Cliff Revering, PGeo (APEGS#9764).

By virtue of their education, membership to a recognized professional association, and relevant work experience, Dr. Mitrofanov, Dr. Machuca and Mr. Cole are independent qualified persons as this term is defined by National Instrument 43-101.

The effective date of the Mineral Resource Statement for the Christie Lake Project is December 13, 2018.

## **13.2 Resource Estimation Procedures**

The mineral resources reported herein were estimated using a geostatistical block modelling approach informed from core drill hole data constrained within mineralization wireframes. The mineral resource evaluation methodology adopted for Christie Lake deposit involved the following procedures:

- Database compilation and verification.
- Construction of solids to be applied as mineral resource domains.
- Data conditioning (compositing and capping) for geostatistical analysis and variography.
- Block modelling and grade interpolation.

- Resource classification and validation.
- Assessment of "reasonable prospects for eventual economic extraction" and selection of appropriate cut-off grades and
- Preparation of the Mineral Resource Statement.

The following sections summarize the methodology and assumptions made by SRK to construct the mineral resource model.

#### **13.3 Resource Database**

UEX provided the mineral resource database as MS Excel and CSV files. The database used to evaluate the mineral resources of the Paul Bay, Ken Pen and Ōrora zones includes 171 core drill holes (78,585 metres) comprised primarily of samples from core drill holes drilled from surface. The database contains 2,754 intervals (1,253 metres) assayed for triuranium octoxide ( $U_3O_8$  or just "uranium" in this section), the mineralized domains contain 1,808 assay intervals.

The database also contains the following additional information used in the resource modelling process:

- Lithology logging including 4,260 intervals (80,743 metres).
- Alteration logging:
  - Bleaching including 985 intervals (20,876 metres).
  - Clay including 4,583 intervals (17,435 metres).
  - Hydrothermal including 107 intervals (1,261 metres).
- Mineralization including 373 intervals (564 metres).
- Density measurements including 1,979 (877 metres).
- Structural data including major structures (130 intervals), minor structures (1,818 intervals) and oriented core measurements (2,715 intervals).

SRK imported the drilling data into Datamine Studio and Leapfrog software and performed the following validation steps:

- Checked minimum and maximum values for each value field and confirmed and edited values outside of expected ranges.
- Checked for gaps, overlaps, and out of sequence intervals for both assay and lithology tables.

In accordance with National Instrument 43-101 guidelines, Mr. Glen Cole from SRK visited the Christie Lake Project during the period September 19-20, 2018, accompanied by Mr. Chris Hamel and other UEX technical exploration staff. SRK is satisfied that the exploration work carried out by UEX is conducted in a manner consistent with industry best practices and, therefore, the exploration data and the drilling database are sufficiently reliable to support a mineral resource evaluation.

SRK was provided a 50k survey DEM topography surface. Although the topography surface resolution is relatively low, the modeling and estimation of the mineralized zones are unaffected due to their respective depth. UEX also provided a 3-dimensional preliminary model of the interpreted unconformity surface and internal mineralized zonal wireframes for reference.

## 13.4 Geological Modelling

Uranium mineralization discovered at the Christie Lake Project to date occurs in three zones; the Paul Bay Zone, Ken Pen Zone, and Ōrora Zone. These zones have a north-easterly trend and are located approximately 420 metres below surface. The mineralization within Ken Pen and Ōrora zones occur along the unconformity boundary and extend deeper along the northeast fault zones forming a "mushroom" shape. The Paul Bay mineralization is basement hosted and was modelled as three parallel zones moderately dipping to the southeast.

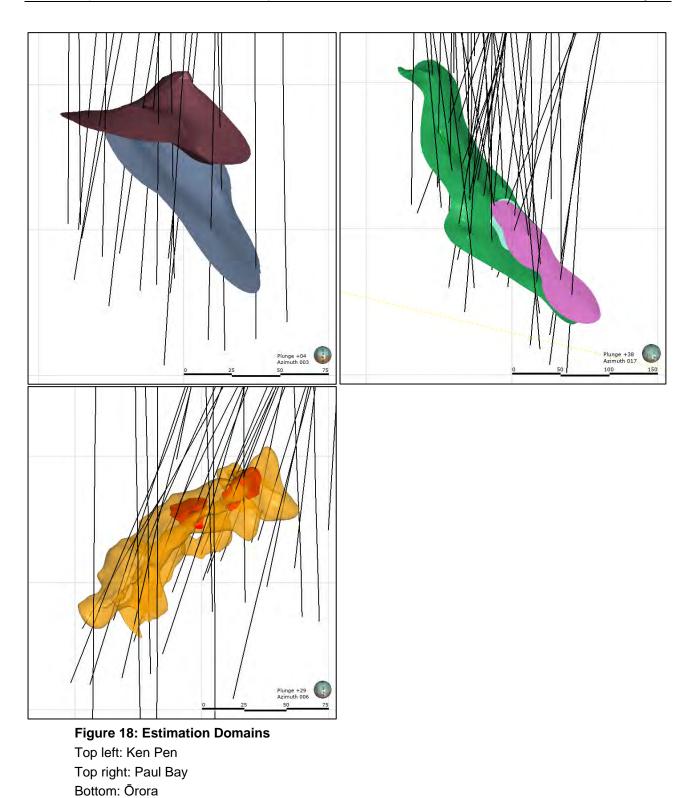
The mineralization zone boundaries were developed using a combined set of criteria including lithology, alteration and mineralization logging, presence of clay and assay grade. Overall, the marginal threshold value of 0.01 percent  $U_3O_8$  was used for contouring, however, the intervals with  $U_3O_8$  grade between 0.01 and 0.05 percent were included only if additional logged evidences of uranium mineralization were in place. The additional high-grade domain developed for  $\bar{O}$ rora zone was undertaken using logged uranium mineralization in combination with core photos.

The mineralization domains were constructed by SRK in a strong collaboration with UEX geologists. Several iterations of edits and reviews were completed before the estimation domains were finalized. An overview of the domains is presented in Figure 18.

## 13.5 Statistical Analysis and Compositing

The assay data within the mineralization domains was extracted and analyzed to determine an appropriate composite length (Figure 19). Most of the analytical samples were collected at 0.5-metre intervals. A modal composite length of approximately 0.5 metres was applied to all the data, generating composites as close to 0.5-metres as possible, while creating residual intervals of up to 0.25 metres in length (drill hole assays). In all cases, composite files were derived from raw values within the modelled resource domains.





The High-Grade domain in Ōrora is coloured red.

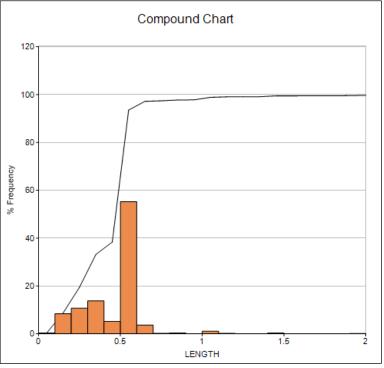


Figure 19: Length Frequency Distribution of the Samples Within the Mineralization Domains

### 13.6 Evaluation of Outliers

The impact of outliers was examined on composite data using log probability plots and cumulative statistics (Appendix E). Upon review, SRK is of the opinion that capping is required to restrict the influence of outliers. The suggested capping values are as follows:

- Ken Pen -10 percent  $U_3O_8$ .
- Paul Bay -30 percent  $U_3O_8$ .
- $\bar{O}$ rora High-Grade 33 percent U<sub>3</sub>O<sub>8</sub>.
- $\overline{O}$ rora Low-Grade 3 percent U<sub>3</sub>O<sub>8</sub>.

The summary statistics for the defined mineral resource domains is tabulated in Table 12.

Table 12: Summary Basic Statistics for Composite and Capped Composite Data for Christie	
Lake Domains	

			U	Uncapped Data				Cappe	d Data		Capping Stats		
Domain	Domain Code	Number	Mean (%)	Std. Dev.	Max. (%)	CoV*	Mean (%)	Std. Dev.	Max. (%)	CoV*	Reduction in the Mean	Percent Capped	
Paul Bay	200	834	1.44	5.92	70	4.11	1.22	3.99	30	3.27	-15%	1%	
Ken Pen	100	256	0.88	2.56	18.87	2.91	0.77	1.92	10	2.49	-13%	2%	
Ōrora High Grade	301	51	16.65	15.94	73.8	0.96	14.54	11.16	33	0.77	-13%	12%	
Ōrora Low Grade	302	498	0.27	0.73	8.38	2.7	0.24	0.49	3	2.04	-11%	1%	

\* CoV=Coefficient of Variation

### 13.7 Specific Gravity

There is a strong quadratic relationship between  $U_3O_8$  grades and Specific Values as observed in the scatterplot presented in Figure 20, especially for uranium grades above 10 percent. Given the high correlation between  $U_3O_8$  grades and specific gravity, block specific gravity values were calculated from estimated uranium grades using the following quadratic regression formula:

 $SG = 2.637 + 0.0111 \times U_3 O_8 + 0.000552 \times (U_3 O_8)^2,$ 

where SG is the estimated specific gravity and  $U_3O_8$  is the assayed or estimated uranium grade.

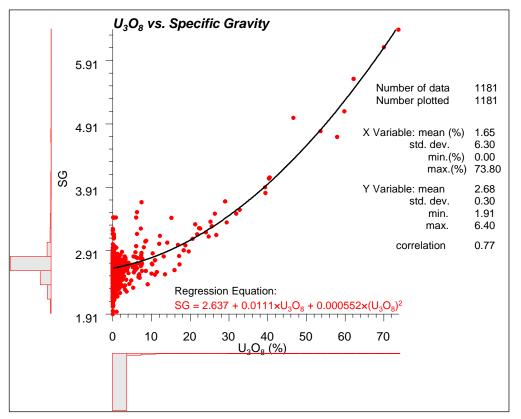


Figure 20: U<sub>3</sub>O<sub>8</sub> vs. Specific Gravity Regression Curve and Equation

### 13.8 Statistical Analysis and Variography

Polygonal declustering bounded by the domain solids was applied to capped composite grades to produce representative uranium statistics. Figure 21 presents the corresponding probability plots and statistics for the Paul Bay and Ken Pen deposits and for the statistically very different High-grade and Low-grade domains of Ōrora.

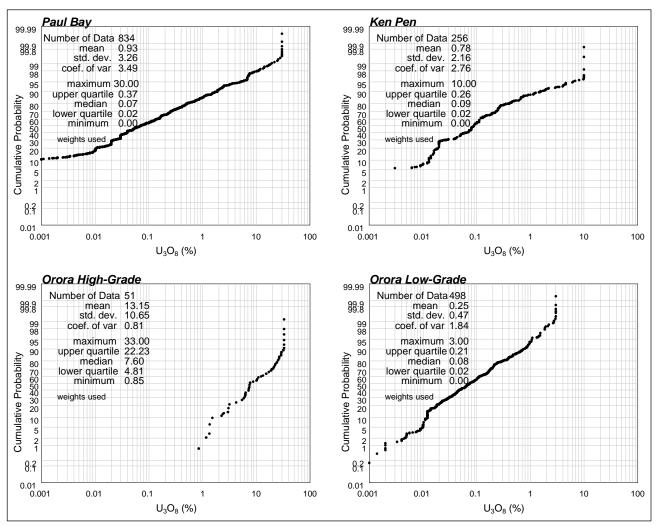


Figure 21: Cumulative Probability Plots for Declustered Composite Data

Spatially continuity analysis was performed on capped composite grades of all domains and deposits combined. The directions of major continuity examined roughly corresponds to the average dip, dip direction and perpendicular direction for all domains in the three deposits. The decision to combine all data for the variography responds to the difficulty to obtain workable experimental variograms for individual domains. Because the high variability of uranium grades, the experimental variograms were calculated on normal-scores transformed composite grades, which were back-transformed to original units for the fitting of the variogram model. Figure 22 shows the normal scores and back-transformed experimental variograms, as well as the fitted variogram model, along the three major directions of spatial continuity and along the down-hole direction. Table 13 presents the fitted variogram model parameters.

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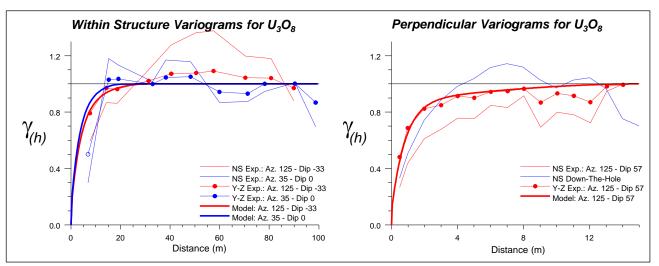


Figure 22: Normal Scores (NS) and Back-transformed (Y-Z) Experimental Variograms and Fitted Variogram Model for  $U_3O_8$  Grades

Demoin	Structure		Sill	Ranges <sup>1</sup>			Rotation Angles <sup>1</sup>		
Domain			Contribution	X (m)	Y (m)	Z (m)	Z	Х	Y
	<b>C</b> <sub>0</sub>	Nugget	0.1	-	-	-	-	-	-
All	<b>C</b> <sub>1</sub>	Exp	0.78	9	12	2.4	125	33	0
	C2	Sph	0.12	20	30	15	125	33	0

#### Table 13: Variogram Model Parameters for U<sub>3</sub>O<sub>8</sub>

<sup>1</sup> Ranges and rotations expressed in Datamine's Z-X-Y rotation convention

### 13.9 Block Model and Grade Estimation

The block model was rotated to coincide with the overall strike of the three deposits and consists of 5 by 10 by 2.5 metres parent cells with 0.5 by 0.5 by 0.5 subcells. Table 14 summarizes the block model definition. The block model subcells were coded using the domains wireframes. Grade estimation was undertaken by ordinary kriging (OK) constrained by uranium mineralization wireframes. In all cases the boundaries defined by the mineralization wireframes were treated as hard.

Table 14: Block Model Pa	rameters
--------------------------	----------

Axis	Block Size	(metres)	Origin*	Number of	Rotation
	Parent	Sub cell	Ongin	Cells	Angle
Х	5	1	507,420	60	0
Y	10	1	6,411,550	105	0
Z	2.5	0.5	-95	76	35

\* NAD83, Zone 13N

Grade estimation was undertaken in four passes using dynamic anisotropic search ellipsoids for all passes excepting the first one. The local angles required for dynamic anisotropy were obtained from the wireframe facets and interpolated into the model. The first two passes were designed to honour the data locally and to constrain the spread of high grades. For these first passes the capping

thresholds presented in Table 12 were used and the search ellipsoids sizes correspond to the size of individual blocks, for the first pass, to the full variogram model range, for the second. The last two passes were designed to fill the gaps and to complete the estimation of all the blocks within the domains. Thus, the search ranges for the third and fourth passes correspond to twice and trice the full variogram ranges, respectively. Also, to minimize the spreading of high grades, the grade capping thresholds used in the last two passes were stricter than in the first two passes for all domains except for the **Ö**rora domains. Table 15 summarizes the search parameters used for the estimation of uranium grades in the Christie Lake Project.

	Search Distances			Composites			Dunamia	Capping Thresholds U <sub>3</sub> O <sub>8</sub> (%)			
Pass	X (m)	Y (m)	Z (m)	Min	Max	Max per Hole	Dynamic Anisotropy	Paul Bav	Ken Pen	Ōrora High Grade	Ōrora Low Grade
1	5	2.5	1.25	1	5	-	No	30	10	33	3
2	20	30	7.50	6	12	5	Yes	30	10	33	3
3	40	60	15.00	6	16	5	Yes	8	5	33	3
4	60	90	22.50	1	20	5	Yes	8	5	33	3

#### 13.10 Model Validation

The estimated block model was validated visually and statistically using cross sections, swath-plots and change of support analysis. Figure 23 shows a longitudinal swathplot comparing the average estimated grades against the declustered composite grades within 20-metre bands. The block model grades follow the informing data grades but show less variability, as expected.

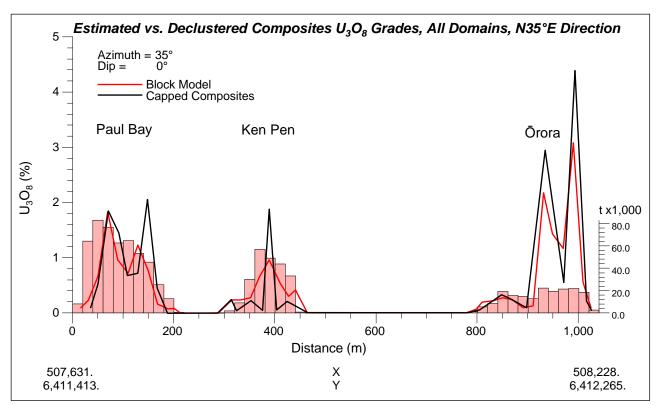


Figure 23: Swathplot Comparing Estimated and Declustered Capped Composite U<sub>3</sub>O<sub>8</sub> Grades

A change of support analysis using the Discrete Gaussian model (DGM) was completed to assess the suitability of the estimation parameters to estimate the block distribution of uranium grades. The quantile-quantile plot in Figure 24 shows that the distribution of block estimated grades match closely the distribution of the composite grades corrected by the change of support model. This analysis was performed for the Paul Bay 1 domain, which by itself contributes 55 percent of the total Christie Lake mineral resources.

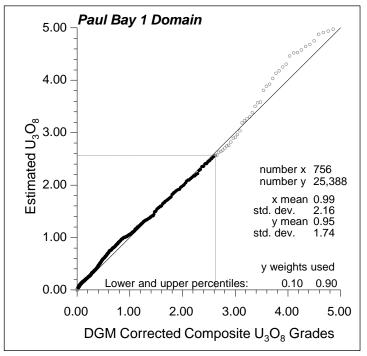


Figure 24: Quantile-Quantile Plot of the Change of Support Corrected Composite and Estimated  $U_3O_8$  Grades for Paul Bay 1 Domain

### **13.11 Mineral Resource Classification**

Considering the early stage of the Christie Lake Project, the general widely spaced drill pattern and the overall uncertainty in the spatial distribution of grades, SRK consider all the reported mineral resources to be classified as Inferred.

#### 13.12 Mineral Resource Statement

SRK considers that the mineral resources for the Christie Lake Project have been estimated in conformity with the generally accepted CIM *Estimation of Mineral Resource and Mineral Reserves Best Practices Guidelines.* The mineral resources are classified in accordance with the CIM *Definition Standards for Mineral Resources and Mineral Reserves* (May 2014).

The Mineral Resource Statement for the Christie Lake Project is presented in Table 16. Considering the early stage of the Christie Lake Project, the general widely spaced drill pattern and the overall uncertainty in the spatial distribution of grades, SRK consider all the reported mineral resources to be classified as Inferred mineral resources. After review of similar underground projects and

discussions with UEX, SRK considers that it is appropriate to report the mineral resources for the Christie Lake Project at a cut-off grade of 0.2 percent of  $U_3O_8$ .

Mineral resources are not mineral reserves and have not demonstrated economic viability. There is no certainty that all or any part of the mineral resources will be converted into mineral reserves. SRK is unaware of any environmental, permitting, legal, title, taxation, socio-economic, marketing, political, or other relevant issues that may materially affect the mineral resources. The Mineral Resource Statement was prepared by Dr. Aleksandr Mitrofanov, PGeo, supported by Dr. David Machuca, PEng, and Mr. Glen Cole, PGeo. Dr. Mitrofanov, Dr. Machuca and Mr. Cole are independent Qualified Persons as this term is defined in National Instrument 43-101. The effective date of the Mineral Resource Statement for the Christie Lake Project is December 13, 2018.

Table 16: Mineral Resource Statement\*, Christie Lake Project, Saskatchewan, Canada, SRK Consulting (Canada) Inc., December 13, 2018

Deposit	Tonnage (000s)	Grade (% U <sub>3</sub> O <sub>8</sub> )	Contained Metal (MIb U <sub>3</sub> O <sub>8</sub> )					
Inferred Mineral Resources								
Paul Bay	338	1.81	13.49					
Ken Pen	149	1.05	3.44					
Ōrora	102	1.53	3.41					
Total	588	1.57	20.35					

\* Mineral resources are not mineral reserves and have not demonstrated economic viability. All figures have been rounded to reflect the relative accuracy of the estimates. Reported at a cut-off grade of 0.2% uranium.

#### 13.13 Grade Sensitivity Analysis

Table 17 illustrates the sensitivity of the tonnes and grade to the cut-off grade in the SRK mineral resource model for the Christie Lake deposit.

Cut-off Grade (% U <sub>3</sub> O <sub>8</sub> )	Quantity (000s Tonnes)	Grade (% U <sub>3</sub> O <sub>8</sub> )	Contained Metal (MIb U <sub>3</sub> O <sub>8</sub> )
-	1,013	0.95	21.24
0.10	770	1.23	20.95
0.20	588	1.57	20.35
0.30	474	1.89	19.73
0.40	398	2.18	19.15
0.50	348	2.43	18.66
0.60	319	2.61	18.30
0.70	290	2.80	17.90
0.80	261	3.03	17.42
0.90	237	3.25	16.97
1.00	221	3.42	16.62

 Table 17: Grade – Tonnage Sensitivities to Cut-off Grades

### 13.14 Recommendations

SRK constructed the mineral resource model in November 2018 with geological support from UEX. Uranium mineralization domains are based on the current on-site geological understanding of the uranium mineralization distribution which incorporates lithological, alteration and grade criteria. SRK considers the data density to be of adequate quality and quantity for mineral resource estimation.

SRK proposes that the following enhancements be considered for future geological and mineral resource modelling processes:

- Additional exploration drilling to verify the extension of the existing zones as well as the discovery of new mineralized zones.
- Additional infill exploration drilling in order to increase the resources category to Indicated in the high-grade areas of the Paul Bay and Ōrora zones.

# 14 Adjacent Properties

There are five properties adjacent to the Christie Lake Project; the McArthur River Mine, operated by Cameco Corporation, the Close Lake Project, operated by Orano Canada Inc., the Carlson Creek claim operated by IsoEnergy Ltd, UEX Corporation, and the Close Lake Property of Fission 3.0 (Figure 25).

The portion of this report concerning the McArthur River Mine is referenced from Cameco Corporation's 2012 McArthur River technical report, available on www.sedar.com. While the information concerning the Close Lake, Carlson Creek, and the Close Lake Project of Fission 3.0 is available in the public domain on the Saskatchewan Mineral Assessment Database and company websites.

### 14.1 The McArthur River Mine (Cameco)

Cameco Corporation is the operator for the McArthur River Uranium Mine and wider McArthur River Project as a joint venture between Cameco Corporation (70 percent) and Orano Canada Inc. (30 percent). The McArthur River Project surrounds the north, east and southern perimeter of the claims of the Christie Lake Project. The McArthur River property is comprised one mining lease totalling 1,380 hectares and 21 mineral claims totalling 83,438 hectares. The McArthur River Mine 15 kilometres southwest of the Paul Bay, Ken Pen and Ōrora zones. The Yalowega Trend on Christie Lake represents the only section of the P2 Fault, the controlling structure at McArthur River, which is or has ever been explored by a publicly listed uranium exploration company other than Cameco.

The McArthur River Mine is considered by most experts be the world's largest and highest-grade uranium deposit. The uranium mineralization at Cameco's McArthur River deposit, generally occurs at between 500 metres and 640 metres below surface, is structurally controlled by the northeast-southwest trending (045 degrees azimuth) P2 reverse fault which dips 40 to 65 degrees to the southeast. In the deposit area, the fault has thrust a sequence of Paleoproterozoic graphitic metasedimentary rocks into the overlying late Paleoproterozic (Helikian) Athabasca Group sediments. The vertical displacement of the thrust fault exceeds 80 metres at the northeast end of the deposit and decreases to 60 metres at the southwest.

The sub-Athabasca basement is two distinct metasedimentary sequences: a hanging wall pelitic sequence of cordierite and graphite-bearing pelitic and psammopelitic gneiss with minor meta-arkose and calc-silicate gneisses, and a lower sequence that is generally quartize and silicified meta-arkose.

Two uranium-rich whole-rock samples were dated by the uranium/lead method and provided upper intercept discordia ages of 1,348 Ma, within a margin of error of 16 Ma and 1,521 Ma (2012, Cameco Corporation), within a margin of error of 8 Ma. The older is interpreted as the age of the primary uranium mineralization and the younger as the age of a remobilization event.

The northeast trending P2 thrust fault is the dominant structural feature of the McArthur River deposit. Thrust faulting generally occurs along several graphite-rich fault planes within the upper 20 metres of the Middle Block basement rocks. These faults parallel the basement foliation and rarely exceed one metre in width. Structural disruption is more severe in the overlying brittle and flat lying

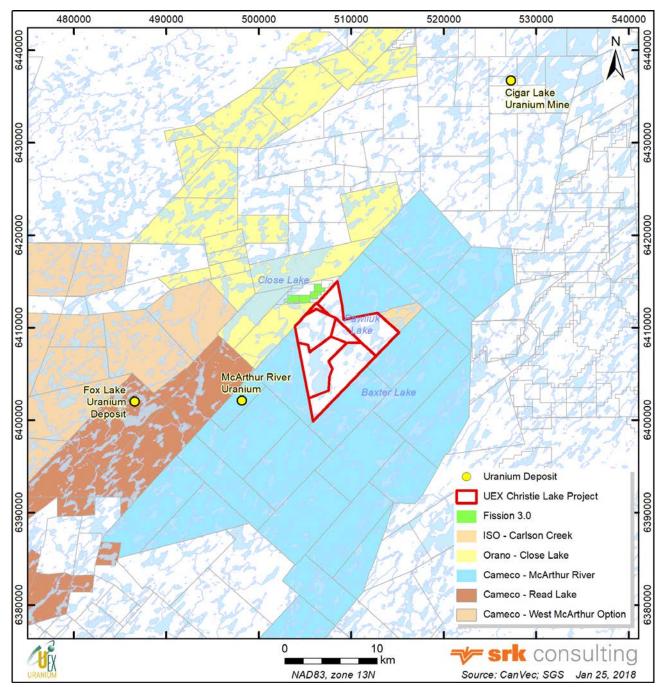


Figure 25: Plan Showing Adjacent Properties to the Christie Lake Project

sandstone evidenced by broad zones of fracturing and brecciation. Zone 4 mineralization is typical for most of the deposit, occurring in the vicinity of the main graphitic fault zone, at or near the contact between the up-thrust basement rocks and the Athabasca sandstone.

The 1994 TDEM survey by PNC indicates that the prospective Yalowega Fault Trend within the Paul Bay, Ken Pen Ōrora zones, is along strike of McArthur River, and continues off property to the northeast onto the McArthur River property once again.

It is noted that Cameco Corporation resumed geophysical surveys and diamond drilling to the northeast on the Yalowega Trend in 2017 and 2018. Cameco suspended production from the McArthur River Mine in late 2017 due to low uranium prices. The McArthur River and Key Lake operations produced 11.1 million pounds of uranium in the first 9 months of 2017 (Cameco, 2018).

Further information on the McArthur River Mine, including resource and reserve estimates, can be found on Cameco Corporation's website and within a technical report published in 2012 and can be found at <u>www.sedar.com</u>.

### 14.2 Close Lake Project (Orano)

Orano Canada Inc. is the majority owner and operator of the Close Lake Project in a Joint Venture with Cameco and JCU. The Close Lake Project comprises 38,959.6 hectares of mineral claims adjacent to the northwestern boundary of the Christie Lake Project. The property spans the transition between the lower Wollaston and Mudjatik Domains in the Cree Lake Mobile Zone of the Churchill Structural Province. The Close Lake Project had been extensively and continuously tested by diamond drilling by Orano and predecessor companies since the early 1980's.

### 14.3 Christie West Project (UEX)

UEX Corporation holds 329.5 hectares in two non-contiguous claim blocks in the area adjacent to the northwestern boundary of the Christie Lake Project. These claims were staked on March 14<sup>th</sup>, 2018 and have not yet been the subject of any exploration by UEX. These claims are interpreted to cover prospective Wollaston Domain basement and UEX will be able to apply insights learned from the adjacent Christie Lake Project to exploration of these claims.

### 14.4 Carlson Creek Project (IsoEnergy Ltd.)

IsoEnergy Ltd. holds 100 percent interest in the Carlson Creek Project adjacent to the northeastern corner of the Christie Lake Project. The property is comprised on a single claim measuring 759 hectares. Work completed on this claim is limited to six drill holes by Titan Uranium in 2007 and 2008 that confirmed the presence of graphitic metasedimentary rocks on the property (IsoEnergy Ltd. Corporate Presentation, 2018).

### 14.5 Close Lake Project (Fission 3.0 Corporation)

Fission 3.0 Corporation has 100 percent ownership in a claims package to the northwest of the Christie Lake Project, totalling 4 claims (374 hectares). The claims were staked on March 14, 2018 for prospecting purposes. There has been no significant field activity since the claims were staked. The claims follow the favourable trend of the Wollaston Domain rocks.

# **15 Other Relevant Data and Information**

There is no other relevant data available about the Christie Lake Project.

# **16 Interpretation and Conclusions**

Exploration drilling on the Christie Lake Project has focused on the Paul Bay, Ken Pen and Ōrora zones to test the continuity of uranium mineralization at and near the unconformity within the project. UEX and previous operators completed a total of 177 core drill holes (78,585 metres) between 1988 to 2018. The program revealed a variety of uranium mineralization styles at the three main zones that includes a combination of basement- and unconformity-hosted mineralization.

SRK witnessed the extent of the exploration work and can confirm that UEX's activities are conducted using field procedures that meet generally accepted industry best practices. SRK is of the opinion that the exploration data are sufficiently reliable to interpret the boundaries of the uranium mineralization and support the evaluation and classification of mineral resources in accordance with generally accepted CIM *Estimation of Mineral Resource and Mineral Reserve Best Practices* and CIM *Definition Standards for Mineral Resources and Mineral Reserves*.

Uranium mineralization at the Ken Pen and Ōrora zones occur along the unconformity boundary and extend downwards along the northeast fault zones. The Paul Bay uranium mineralization is hosted within the basement rocks as three parallel zones that dip moderately towards the southeast. Given a strong quadratic relationship between  $U_3O_8$  grades and density, block density values were calculated from estimated uranium grades using a quadratic regression formula. A model composite length of 0.5 metres was applied to all of the data, honouring the mineralization envelope boundaries generating composites as close to 0.5-metres as possible, while creating residual intervals of up to 0.25 metres in length.

The mineralization zones boundaries were developed using a combined set of criteria including lithology, alteration and mineralization logging, presence of clay and assay grade. Overall, the marginal threshold value of 0.01 percent  $U_3O_8$  was used for contouring, however, the intervals with  $U_3O_8$  grade between 0.01 and 0.05 percent were included only if additional logged evidence of uranium mineralization were in place. The additional high-grade domain developed for  $\bar{O}$ rora zone was generated using logged uranium mineralization in combination with core photos.

The mineralization domains were constructed by SRK in a strong collaboration with UEX geologists. Several iterations of edits and reviews were completed before the estimation domains were finalized.

The block model was classified using a combination of tools, including confidence in the geological interpretation, search radii, minimum number of drill holes and composites, variography, and estimation pass. In collaboration with UEX, SRK selected a block size of 5 by 10 by 2.5 metres for all mineralized zones. Sub-cells were assigned the same grade as the parent cell. The block model is rotated on the Z-axis to honour the orientation of the overall strike of the three deposits.

In all cases, grade estimation used an ordinary kriging estimation algorithm and four passes informed by capped composites. Validation checks confirm that the block estimates are a reasonable representation of the informing data considering the current level of geological and geostatistical understanding of the project.

No processing or metallurgical data is currently available for project lithologies or the uranium mineralization. Considering this uncertainty and the current level of drilling, SRK considers all block estimates within the mineralized zones to classified as Inferred.

## 17 Recommendations

The geological setting, character of the uranium mineralization delineated, and exploration results to date are of sufficient merit to justify additional exploration expenditure to potentially expand the uranium mineralization footprint on the Christie Lake Project.

SRK supports UEX's primary exploration objectives for the Christie Lake Project, which are:

- 1. Expand the existing zones of uranium mineralization along the Yalowega Trend.
- 2. Identify and/or test:
  - Additional areas of uranium mineralization along the Yalowega Trend.
  - The remainder of the P2 structural corridor to the southwest of the three main zones.
  - The southern conductive corridor(s).

The Christie Lake Project hosts multiple significant uranium deposits along the Yalowega Trend. The trend remains under-explored and is considered highly prospective for the discovery of additional lenses and zones of uranium mineralization.

SRK supports the proposed UEX two-phase exploration program for the Christie Lake Project which is focussed on identifying additional uranium mineralization and expanding the current uranium mineralization footprint on the property. The exploration program has a combined budget of C\$5,144,000.

### 17.1 Phase 1

The Phase 1 program is scheduled to begin during the winter of 2019 with an estimated exploration budget of C\$2,000,000 aimed at expanding the current uranium resources and identifying new potential zones of uranium mineralization. Line-cutting and grid refurbishment will take place during the winter months followed by a direct current (DC) resistivity survey in April and core drilling during the summer. The DC resistivity survey will follow 120 line-kilometres to characterize the resistivity signature of the three known Yalowega Trend deposits and identify areas of low resistivity as a proxy for alteration that is typically associated with and surrounding potential uranium mineralization along the Yalowega Trend. The DC Resistivity survey data will be used in conjunction with the existing TDEM data and drill holes to target future drilling. The Phase 1 drilling program involves eight to 10 planned drill holes totalling 4,800 metres focused to:

- Evaluate the unconformity subcrop of the Yalowega Trend Fault where it is coincident with the CB94-B conductor with four planned drill holes (2,200 metres).
- Follow-up previous results in the Shoreline area with three to four planned drill holes (1,600 metres), particularly around CB-132 that graded 0.37 percent U<sub>3</sub>O<sub>8</sub> over 11.2 metres in the summer of 2018.
- Target the periphery of Ken Pen Zone to explore for extensions of the uranium mineralization in one to two planned drill holes (1,000 metres).

A tabulated Phase 1 exploration budget is provided in Table 18.

Direct Costs	Phase I Budget (C\$)
Personnel	\$258,700
Field Equipment Costs	\$27,600
Analysis	\$31,800
Travel and Transport	\$67,600
Miscellaneous	\$11,200
Total Direct Costs	\$396,900
Contractor Costs	
Line-cutting	\$110,800
Geophysical Surveys	\$490,100
Diamond Drilling	\$598,200
Camp Costs	\$195,300
Other Contractor	\$26,900
Total Contractor Costs	\$1,421,300
Total Project Costs	\$1,818,200
Administration Fee (10%)	\$181,800
Total Joint Venture Costs	\$2,000,000
Partner's Share	
UEX Corporation (60%)	\$1,200,000
JCU Canada Exploration Company (40%	) \$800,000
Total Partner Share	\$2,000,000

#### Table 18: Phase 1 Exploration Budget

#### 17.2 Phase 2

The Phase 2 program is designed to continue testing target areas defined by Phase 1 and will partially be contingent upon results of Phase I, particularly the areas or target concepts that target in the basement down-dip from the unconformity subcrop of the Yalowega Trend. Encouraging alteration or evidence of fluid-rock interaction will be required in advance of further investigation into the basement below the unconformity subcrop of the Yalowega Trend Fault. This phase of exploration is envisioned to be carried out from 2020 to 2022. A recommended budget for Phase II will be approximately C\$3,144,000.

The objectives for Phase II will include, but are not limited to:

- Continued testing of the A, B and C conductors of the Yalowega Trend for additional zones of mineralization in the areas not tested by the Phase I program.
- Geophysical EM surveys to confirm and enhance the location of the conductors as resolved from the Phase 1 survey in the southern part of the property.
- Preparation for drill testing of the southern conductive corridor.

Successful exploration activities will naturally warrant modifications and potential budget expansions or additional programs. A tabulated Phase 2 exploration budget is provided in Table 19.

Area	Holes	Avg Length (m)	Total Metres		Cost (C\$)	Total (C\$)
Grassroots Drilling						
Conductor CB94-C South	6	600	3,600	\$300	\$1,080,000	
Conductor CB94-B down dip	6	550	3,300	\$300	\$990,000	
Conductor CB94-A	6	550	3,300	\$300	\$990,000	
Total						\$3,060,000
Geophysics	Lines	Length	Total km	Unit Cost	Cost	Total
South Conductors	8	3	24	\$2,500	\$60,000	
Line-cutting	8	3	24	\$1,000	\$24,000	
Total						\$84,000
Total Phase 2 - Christie Lake Exploration Budget						

### 17.3 Metallurgical Test Work

In addition to the two-phase exploration program outlined above, future work should involve implementing a metallurgical test work program. This could be executed at a time when UEX conducts a drilling program aimed at increasing the mineral resources category from Inferred to Indicated in the high-grade areas of Paul Bay and Ōrora Zones.

### 17.4 Comment

The proposed exploration program should be pro-actively managed, with new information rapidly integrated into the uranium mineralization interpretation. Drill programs should be flexible enough to be modified to integrate new information and interpretations which could have a positive impact on the uranium mineral resource.

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# **APPENDIX A**

#### Mineral Tenure Information and Legal Title Opinion

#### MLTAIKINS

WESTERN CANADA'S LAW FIRM

October 10, 2018

UEX Corporation Unit 200 - 3530 Millar Avenue Saskatoon, SK S7P 0B6

Koffman Kalef LLP 19th Floor 885 West Georgía Street Vancouver BC V6C 3H4

Cassels Brock & Blackwell LLP 2100 Scotia Plaza 40 King Street West Toronto, ON M5H 3C2

Cormark Securities Royal Bank Plaza, South Tower 200 Bay Street, Suite 2800 Toronto, ON M5J 2J2

Sprott Capital Partners Royal Bank Plaza, South Tower 200 Bay Street, Suite 2600 Toronto, ON M5J 2J1

Eight Capital 100 Adelaide St West, Suite 2900 Toronto, ON M5H 1S3

Dear Sirs/Mesdames:

#### Re: UEX Corporation - Review of Certain Mineral Dispositions

We have acted as local counsel on behalf of UEX Corporation ("UEX") in connection with a review of certain mineral dispositions (collectively, the "Mineral Dispositions") granted by Her Majesty the Queen in Right of the Province of Saskatchewan ("Her Majesty") pursuant to *The Mineral Tenure Registry Regulations* (Saskatchewan) (the "Regulations") under *The Crown Minerals Act* (Saskatchewan) (the "Act" and, together with the Regulations, the "Legislation") and filed at the Saskatchewan Ministry of the Economy (the "Ministry"). The Mineral Dispositions are described in Schedule A attached hereto.

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The Crown lands that are subject to the Mineral Dispositions are hereinafter referred to as the "Mineral Lands" and the areas that the Mineral Dispositions relate to are hereinafter referred to as the "Mineral Disposition Areas".

#### I. Scope of Examinations and Reliance

Except as expressly noted herein, in providing the opinions expressed herein we have considered such questions of law and have made such investigations and examined originals or copies, certified or otherwise identified to our satisfaction, of such certificates of public officials and of such other certificates, documents and records as we have considered necessary or relevant for the purposes of giving the opinions expressed herein, including, without limitation:

- (a) disposition search abstracts (the "Disposition Search Abstracts") issued by the Mineral Administration Registry Saskatchewan and dated October 9, 2018 in respect of the Mineral Dispositions; and
- (b) a letter from Vivian Bohn, Mineral Tenure, Ministry of the Economy dated October 1, 2018 (the "Ministry Letter").

The Disposition Search Abstracts are attached as Schedule B hereto and the Ministry Letter is attached as Schedule C hereto.

Other than as specifically identified herein, we have not conducted any other searches or investigations in respect of the Mineral Lands, the Mineral Dispositions or any mines and minerals within, upon or under the Mineral Disposition Areas that we are relying on for purposes of this opinion letter.

#### II. Assumptions

For the purposes of giving the opinions expressed herein, we have assumed, without independent investigation or inquiry:

- the accuracy, currency and completeness of: (i) the public indices and filing systems maintained by the public offices and registries where we have searched or inquired; (ii) the search results and certificates furnished to us by public officials; and (iii) the results of any printed or computer search provided to or obtained by us, including results obtained by electronic transmission from public offices;
- 2. to the extent that any certificate or other document relied upon for the purposes of the opinions expressed herein has been dated prior to the date of this letter, that the information contained in the said certificate or other document continues to be valid, true and accurate as of the date of this letter;
- 3. the genuineness of all signatures on all documents reviewed by us, the authenticity of all documents reviewed by us as originals and the conformity to authentic original documents of all documents reviewed by us as certified, authenticated, conformed, photostatic or facsimile copies; and

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4. that all persons who executed documents reviewed by us on behalf of themselves or on behalf of another party were duly authorized to do so and that such documents were validly executed and delivered and constitute legal, valid, binding and enforceable obligations of such parties in accordance with the terms of such documents.

As used in this opinion letter, our knowledge or awareness means the actual and present knowledge of the particular lawyers of this firm who have given substantive attention to the matters contemplated hereby. Other than as specifically indicated herein, we have not made any independent investigation or inquiry into such matters.

#### III. Laws Covered

The opinions expressed below relate solely to the laws of the Province of Saskatchewan and the laws of Canada applicable therein and we do not express any opinion with respect to the laws of any other jurisdiction.

#### IV. Opinions

Based upon the foregoing and subject to the comments and qualifications herein contained, we are of the opinion that:

- Orano Canada Inc. is recorded at the Ministry as the holder of a 100% interest in the Mineral Dispositions listed in Part I of Schedule A hereto, JCU (Canada) Exploration Co., Ltd. is recorded at the Ministry as the holder of a 100% interest in the Mineral Dispositions listed in Part II of Schedule A hereto, and UEX is recorded at the Ministry as the holder of a 100% interest in the Mineral Dispositions listed in Part III and Part IV of Schedule A hereto.
- Each of the Mineral Dispositions is in good standing to the "Good Standing To" date indicated for each Mineral Disposition in Schedule A attached hereto.
- There are no claims outstanding in respect of, or encumbrances, charges, security interests or instruments recorded against, the Mineral Dispositions.

#### V. Qualifications

The opinions expressed above are subject to the following qualifications:

- Our opinion set forth in Section IV(2) of this opinion letter is provided based solely on our review of the Disposition Search Abstracts.
- 2. The Mineral Dispositions do not constitute the type of property in which there is an assured certificate evidencing title or as to which there is a comprehensive public registry for registration of encumbrances, charges or instruments. We have not conducted any searches or attended to a review of any documents other than as specifically referred to herein. The Mineral Dispositions may be affected by matters not recorded on the Disposition Search Abstracts or referenced in the Ministry Letter including, without limitation, assignments, transfers, encumbrances, charges or instruments. We are not

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aware of any such matters, but we are not able to conduct searches or make inquires which will provide the basis for a definitive opinion in relation thereto, and we express no opinion as to the existence or effect of any assignments, transfers, encumbrances, charges, instruments or other matters in respect of any of the Mineral Dispositions not recorded on the Disposition Search Abstracts or referenced in the Ministry Letter.

- 3. Except as otherwise stated herein, neither the Disposition Search Abstracts nor the Ministry Letter disclose any non-compliance with the terms of the Mineral Dispositions or the Legislation. We express no opinion as to whether there has been any noncompliance that has not been recorded on the Disposition Search Abstracts or in the Ministry Letter.
- 4. We express no opinion as to the ownership of Her Majesty in the Mineral Lands, or any encumbrances, charges, or instruments which may affect Her Majesty's rights and interests in and to the Mineral Lands.
- We express no opinion as to the existence of any mines or minerals within, upon or under the Mineral Disposition Areas.
- 6. The Mineral Dispositions may be subject to a claim by native or aboriginal peoples pursuant to treaty rights or otherwise. We express no opinion with respect to the validity or potential success of any such claims or the manner in which they may affect the Mineral Dispositions.
- 7. The opinions expressed herein are given as of the date hereof and are based upon and subject to laws in effect as of the date hereof. We specifically disclaim any obligation and make no undertaking to supplement our opinions herein as changes in the law occur or facts come to our attention that could affect such opinions, or otherwise advise any person of any change in law or fact which may come to our attention after the date hereof.

#### VI. Comments and Advisories

- The Regulations define "mineral disposition" to include the rights granted by Her Majesty under a permit, claim or lease with respect to Crown minerals to which the Regulations apply.
- The Mineral Disposition listed in paragraph 28 of Schedule A is a lease. All of the other Mineral Dispositions are claims.
- 3 Subject to certain conditions, a recorded claim grants to the holder the exclusive right to explore for minerals within the claim lands. A claim does not grant the holder the right to mine, produce or remove minerals from the claim lands, other than the right to remove minerals for the purpose of assaying and testing and for metallurgical, mineralogical or other scientific studies.

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- Subject to certain conditions, a lease grants to the holder the exclusive right to explore for, mine, work, recover, procure, remove, carry away and dispose of any minerals within the lease lands.
- 5. A mineral disposition granted pursuant to the Regulations (including a claim or lease) does not grant a right to enter upon or use surface lands. Therefore, a party granted rights under a mineral disposition would be required to obtain further rights from the owner of the surface to access the surface lands, as may be required.
- Her Majesty may cancel a mineral disposition if the holder of the mineral disposition fails to comply with the provisions thereof or a provision of the Legislation.
- 7. Unless exceptions apply, a claim is subject to lapse without notice to the holder if: (i) the expenditure requirements for a claim set forth in the Regulations are not satisfied by a holder within the time specified by the Regulations, or (ii) a payment or cash deposit in lieu of work expenditures on a claim is not paid to the minister within the time specified by the Regulations and subject to the conditions contained in the Regulations.
- 8. We note that a disposition holder has 90 days after the end of a disposition year to, in accordance with the Regulations: (i) submit a statement setting forth expenditures on work performed and a report of evidence of work with respect to a disposition or, (ii) if permitted pursuant to the Regulations, make a payment or cash deposit in lieu of work expenditures. The Ministry typically does not apply assessment work or record renewals for dispositions until this 90-day period has passed.

#### VII. Reliance Limitation

This opinion letter is given solely for the benefit of the addressees and in connection with the matters noted above, and may not be relied upon by any other person or for any other purpose without our prior written consent.

Yours truly,

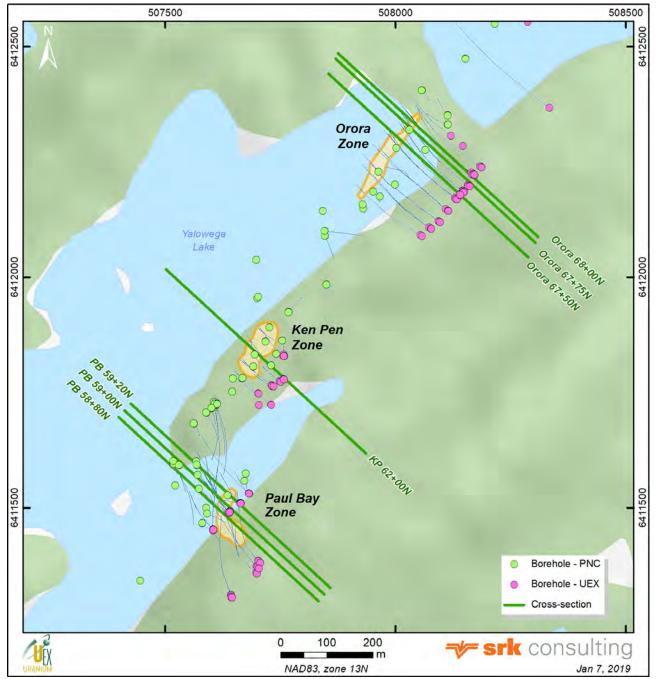
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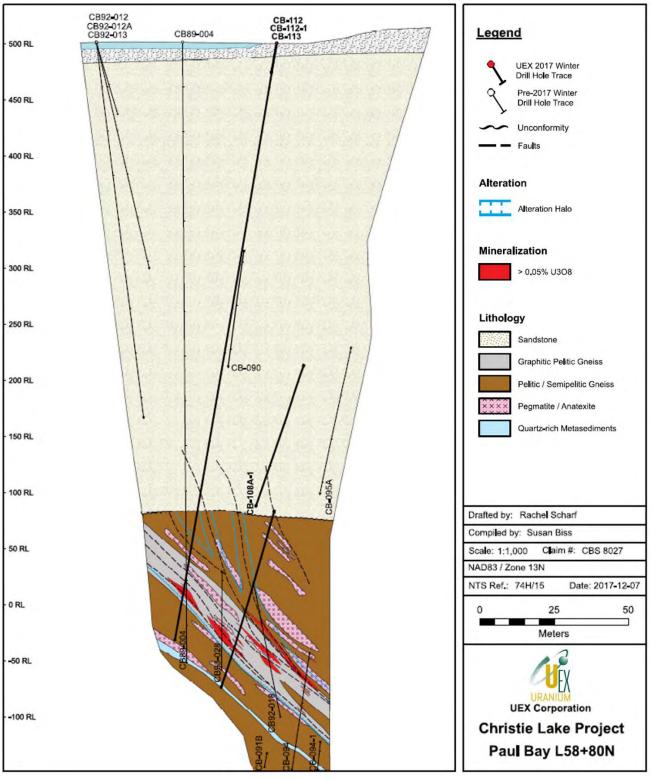
# **APPENDIX B**

#### **Interpreted Geological Cross Sections for Mineralization Domains**

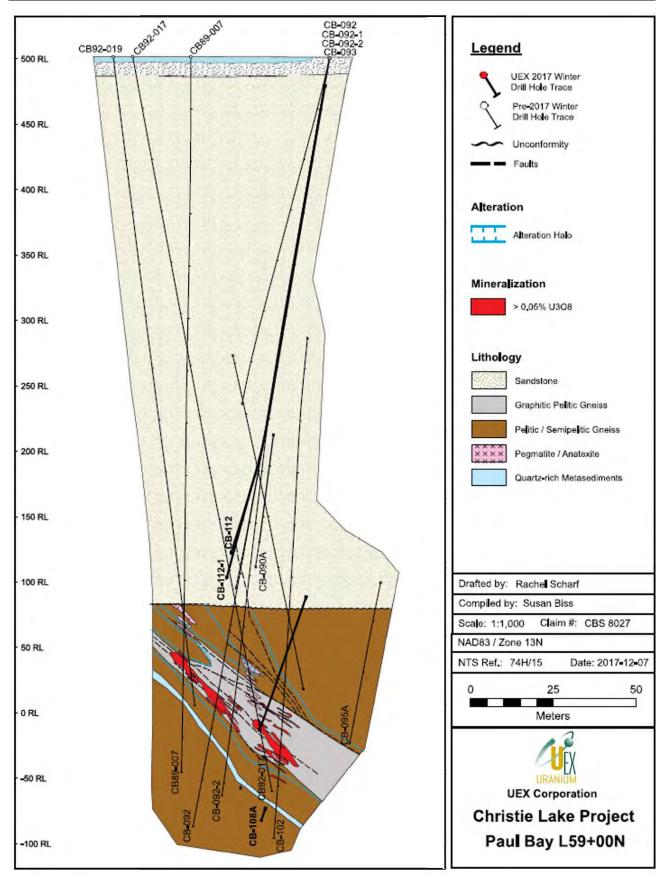


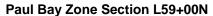
Plan Map Showing Cross Section Locations for the Paul Bay, Ken Pen and Ōrora Zones

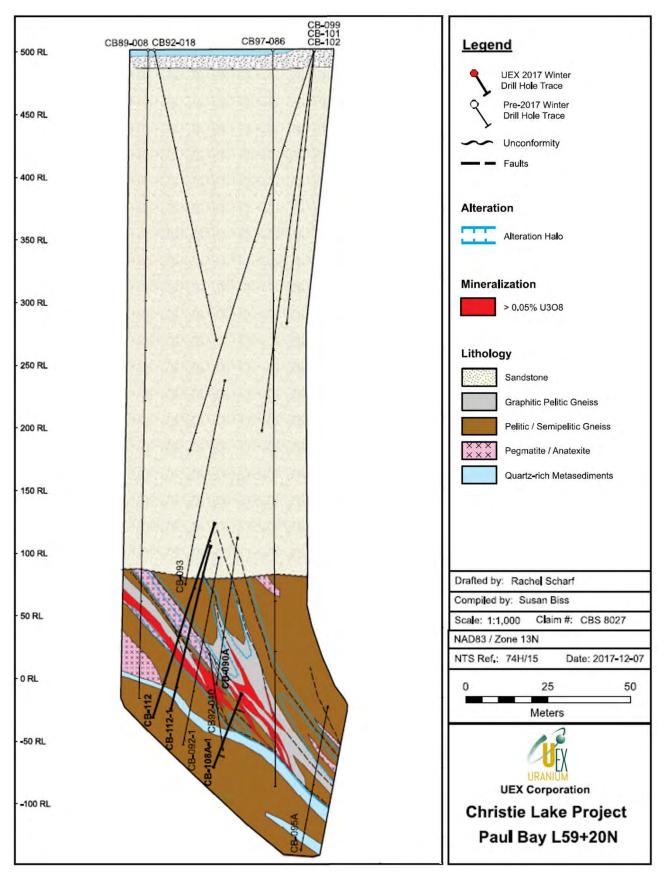
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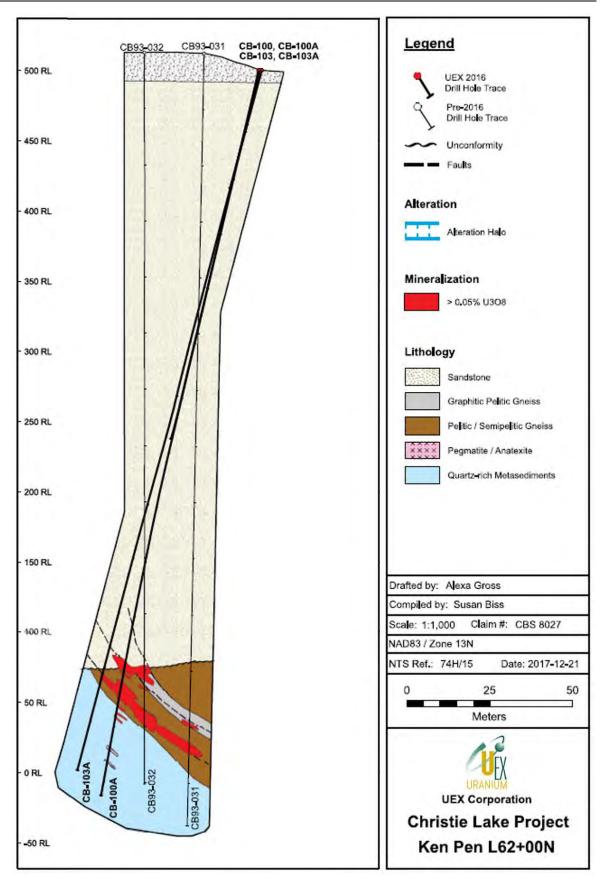
Paul Bay Zone Section L58+80N



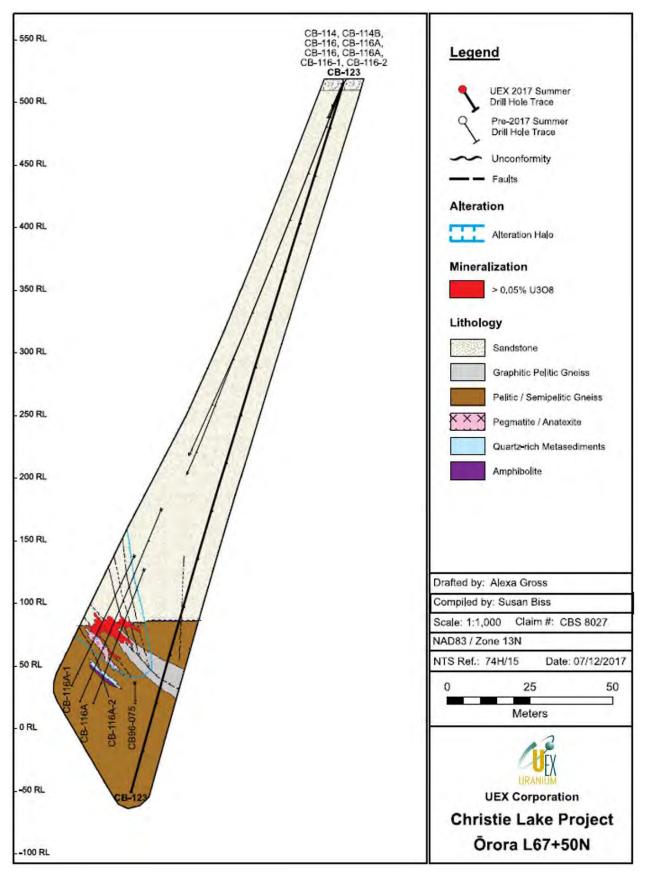




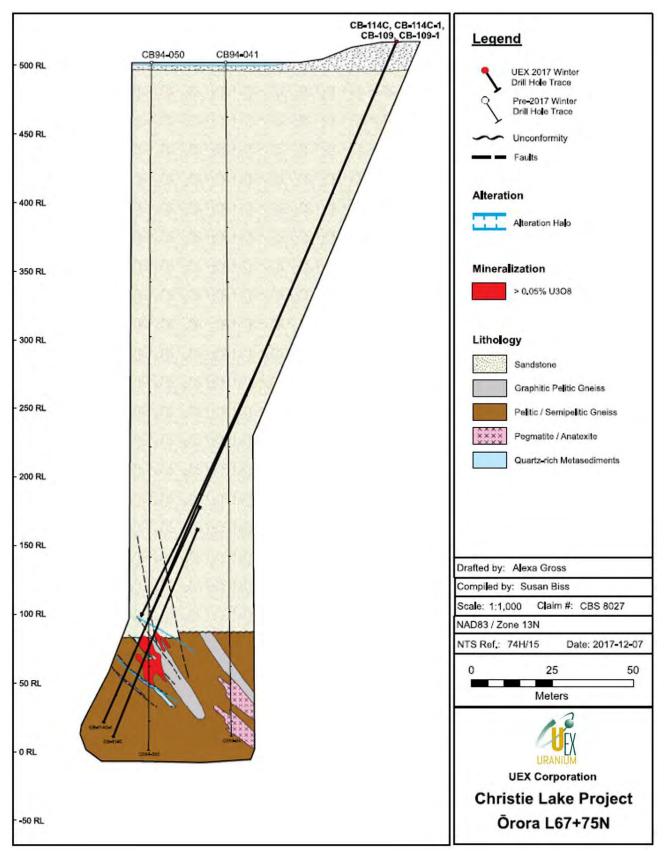




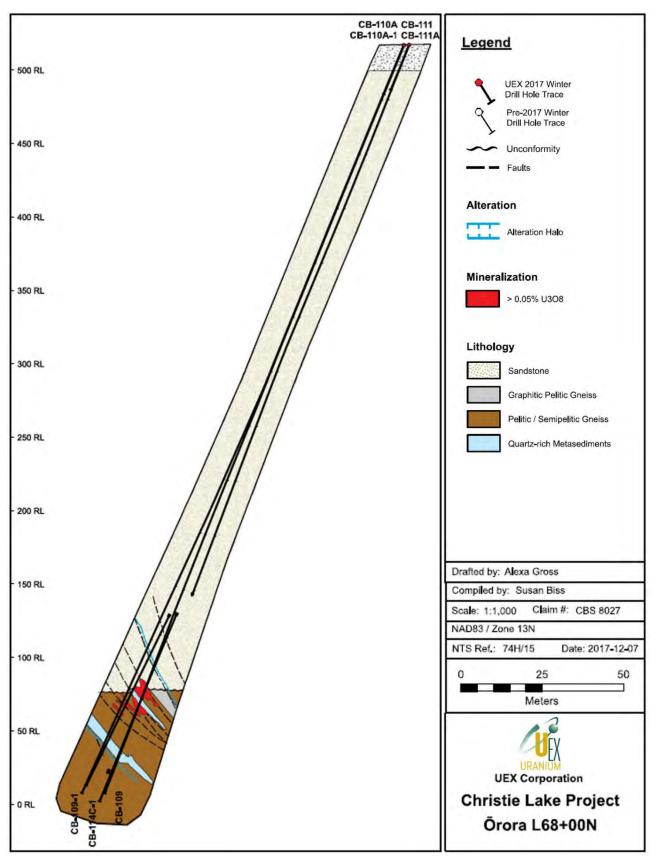
Ken Pen Zone Section 62+00N



#### **Ōrora Zone Section 67+50N**



#### **Ōrora Zone Section 67+75N**



**Ōrora Zone Section 68+00N** 

# APPENDIX C

### Summary of Drilling Characteristics on the Christie Lake Property

		Length	Easting*	Northing*	Elevation	
Drill hole ID	Azimuth	Dip	-	-	-	
0000.004	004		(metre)	(metre)	(metre)	(metre)
CB88-001	221	-88	497.7	505,483.7	6,410,316.2	505.5
CB88-002	188	-88	534.5	505,424.4	6,410,936.5	534.3
CB88-003	228	-89 -90	471.5	506,450.6	6,410,564.9	501.0
CB89-004 CB89-005	0 53	-90 -89	553.5 480.7	507,573.0 506,793.5	6,411,541.0 6,411,357.6	501.6 503.8
CB89-006	108 0	-88 -90	532.5 547 5	504,675.1	6,410,269.0	500.0
CB89-007	328	-90 -89	547.5 517.2	507,570.2 507,567.5	6,411,571.4	501.6
CB89-008 CB89-009	320 0	-89 -90	535.5	507,674.6	6,411,600.6 6,411,573.8	501.6 501.7
CB92-010	172	-90 -73	596.0	507,607.4	6,411,721.7	511.7
CB92-010 CB92-011	172	-73	551.0	507,607.4	6,411,722.5	511.7
CB92-011 CB92-012	158	-78	68.0	507,517.5	6,411,594.8	501.6
CB92-012 CB92-012A	136	-72	559.0	507,517.6	6,411,594.2	500.4
	147	-76	491.0			500.4 501.6
CB92-013		-03 -79		507,518.6 507,606.5	6,411,595.7	
CB92-014	158 155	-79 -75	574.0	,	6,411,725.9	511.7
CB92-015			596.0	507,606.1	6,411,729.5	511.7
CB92-015A	148	-74	41.0	507,607.0	6,411,725.9	511.7
CB92-016	309	-89	506.0	507,697.0	6,412,037.5	502.0
CB92-017	119	-79	572.0	507,529.2	6,411,592.6	501.6
CB92-018	141	-78	617.0	507,567.6	6,411,593.3	501.6
CB92-019	115	-83	500.0	507,517.1	6,411,601.3	501.6
CB92-020	147	-87	497.0	507,561.8	6,411,682.8	509.4
CB92-021	148	-84	498.0	507,588.4	6,411,706.3	510.9
CB93-022	0	-90	482.0	507,699.3	6,411,953.9	502.0
CB93-022A	15	-88	23.0	507,701.5	6,411,957.1	502.0
CB93-023	102	-89	479.0	507,612.2	6,411,724.9	511.8
CB93-023A	15	-88	32.0	507,612.2	6,411,724.9	511.8
CB93-024	31	-89	560.0	507,717.1	6,411,860.3	512.8
CB93-025	319	-89	485.0	507,646.8	6,411,779.7	509.6
CB93-026	316	-89	476.0	507,445.7	6,411,341.4	501.0
CB93-027	241	-89	485.0	507,521.3	6,411,548.1	501.6
CB93-028	18	-89	559.4	507,588.4	6,411,499.7	501.3
CB93-029	0	-90	464.0	507,841.6	6,412,143.2	502.0
CB93-030	0	-90	547.0	507,753.9	6,411,862.1	514.5
CB93-031	278	-89	550.0	507,729.6	6,411,808.3	512.1
CB93-032	25	-89	521.0	507,693.8	6,411,832.1	512.9
CB93-033	205	-89	503.0	507,667.6	6,411,781.2	511.4
CB93-034	0	-90	485.0	507,645.0	6,411,751.5	511.5
CB94-035	222	-89	543.0	507,849.9	6,411,983.8	512.5
CB94-036	160	-89	503.3	507,725.9	6,411,891.0	511.8
CB94-037	221	-89	482.0	507,929.5	6,412,148.2	502.0
CB94-038	153	-84	512.0	507,846.3	6,412,089.8	502.0
CB94-039	165	-84	196.0	507,928.0	6,412,157.6	502.0
CB94-040	97	-82	530.0	507,845.5	6,412,100.1	502.0
CB94-041	70	-89	491.0	508,064.1	6,412,275.8	502.1
CB94-042	119	-86	128.0	504,405.6	6,409,974.9	500.0
CB94-043	60	-89	542.0	508,356.6	6,412,563.4	504.0
CB94-044	160	-87	497.0	504,424.0	6,409,871.2	511.7
CB94-045	35	-89	607.0	507,998.6	6,412,200.5	502.0
CB94-046	214	-89	238.0	505,179.7	6,410,888.8	541.6
CB94-046A	259	-88	570.0	505,179.7	6,410,888.8	541.6

Summary Characteristics of Drilling (PNC) (1/2)

Summary	Summary Characteristics of Drilling (PNC) (2/2)									
	<b>A</b> = : we with	D:	Length	Easting*	Northing*	Elevation				
Drill hole ID	Azimuth	Dip	(metre)	(metre)	(metre)	(metre)				
CB94-047	143	-87	542.0	508,056.6	6,412,405.2	499.7				
CB94-048	335	-89	533.0	505,764.3	6,410,635.8	532.5				
CB94-049	0	-90	494.0	507,962.3	6,412,228.6	502.0				
CB94-050	4	-89	501.0	508,030.1	6,412,318.8	502.0				
CB94-051	332	-85	490.0	508,113.0	6,412,350.7	499.8				
CB94-052	6	-86	545.0	505,910.3	6,410,765.7	543.8				
CB94-053	39	-89	467.0	507,249.2	6,411,167.2	501.0				
CB95-054	338	-89	659.0	508,500.6	6,412,982.3	506.0				
CB95-055	63	-88	593.0	506,028.0	6,410,924.6	549.4				
CB95-056	297	-84	497.0	508,113.4	6,412,330.3	499.8				
CB95-057	299	-88	131.3	506,128.5	6,411,105.0	538.5				
CB95-057A	197	-88	581.0	506,120.7	6,411,110.0	538.1				
CB95-058	164	-84	614.0	508,517.2	6,412,913.3	504.0				
CB95-059	281	-84	638.0	506,088.0	6,411,164.1	541.3				
CB95-060	335	-89	470.0	508,151.2	6,412,473.1	504.0				
CB95-061	198	-89	597.5	506,136.9	6,411,365.9	555.8				
CB95-062	327	-89	500.0	508,270.2	6,412,644.6	504.0				
CB95-063	288	-86	541.0	506,336.2	6,411,448.3	522.3				
CB95-064	316	-83	488.0	508,384.9	6,412,804.1	504.0				
CB95-065	317	-87	559.0	505,870.3	6,411,069.7	546.0				
CB95-066	179	-89	515.0	507,965.3	6,412,174.6	502.0				
CB95-067	114	-89	500.0	508,367.5	6,412,818.4	504.0				
CB95-068	218	-84	568.0	506,099.2	6,411,159.9	539.9				
CB95-069	158	-87	503.0	507,599.8	6,411,716.0	511.4				
CB95-070	261	-88	560.0	505,759.8	6,410,903.5	538.0				
CB95-071	34	-85	505.5	507,767.3	6,411,923.4	511.8				
CB96-072	176	-89	521.0	507,690.8	6,411,806.3	513.0				
CB96-073	0	-90	509.6	508,442.9	6,412,887.9	504.0				
CB96-074	279	-89	482.6	508,188.8	6,412,573.5	504.0				
CB96-075	0	-90	482.0	508,000.9	6,412,279.8	502.0				
CB96-076	103	-89	536.0	507,371.9	6,411,056.9	522.8				
CB96-077	134	-85	611.0	507,579.7	6,411,466.4	501.0				
CB96-078	159	-89	500.0	507,951.3	6,412,185.3	502.0				
CB96-079	110	-89	551.0	508,431.7	6,412,829.8	504.0				
CB96-080	334	-89	528.0	505,797.2	6,410,597.6	531.9				
CB96-081	0	-90	533.0	508,214.8	6,412,548.5	504.0				
CB96-082	277	-89	545.0	505,982.0	6,410,969.4	548.0				
CB96-083	157	-89	527.0	507,297.2	6,410,840.0	519.7				
CB96-084	71	-86	500.0	506,628.3	6,411,464.2	511.6				
CB97-085	0	-90	552.0	507,740.7	6,411,833.3	513.1				
CB97-086	58	-89	588.0	507,635.5	6,411,527.0	501.6				
CB97-087	141	-88	612.0	507,671.6	6,411,558.4	501.6				
CB97-088	115	-86	552.0	507,590.5	6,411,487.8	501.6				
CB97-089	352	-88	492.0	507,236.4	6,410,636.9	508.4				
MAC-189	0	-90	479.0	509,451.0	6,407,659.0	499.0				
Total			47,520.7							

\* UTM NAD83 Zone13 North

Drill hole ID	Azimuth	Dip	Length	Easting*	Northing*	Elevation
CB-090	350	-78	(metre) 380.0	(metre) 507,604.4	(metre) 6,411,451.1	(metre) 500.5
CB-090 CB-090A	350	-78	616.0	507,604.4	6,411,451.1	500.5
CB-090A CB-091	350 341	-78 -76	60.0	507,604.4		500.5
	338	-76			6,411,305.0	
CB-091A			267.0	507,645.0	6,411,305.4	539.2
CB-091B	338	-76	708.0	507,645.0	6,411,305.4	539.3
CB-092	315	-80	597.0	507,639.7	6,411,489.8	500.3
CB-092-1	315	-80	560.4	507,639.7	6,411,489.8	500.3
CB-092-2	315	-80	570.0	507,639.7	6,411,489.8	500.3
CB-093	330	-77	567.0	507,640.1	6,411,490.2	500.6
CB-094	315	-78	726.0	507,698.7	6,411,357.3	540.5
CB-094-1	315	-78	717.0	507,698.7	6,411,357.3	540.5
CB-095	315	-78	60.0	507,706.2	6,411,380.1	539.8
CB-095A	315	-78	735.0	507,706.1	6,411,380.2	539.5
CB-096	315	-82	603.0	507,604.6	6,411,452.2	500.5
CB-096-1	315	-82	615.0	507,604.6	6,411,452.2	500.5
CB-097	312	-84	600.0	507,682.0	6,411,530.2	500.6
CB-098	310	-72	578.4	507,681.8	6,411,530.3	500.5
CB-099	311	-73	609.0	507,663.8	6,411,509.3	501.4
CB-100	312	-77	45.0	507,750.2	6,411,772.7	500.3
CB-100A	308	-77	530.0	507,750.2	6,411,772.7	500.3
CB-100A-1	308	-77	270.0	507,750.2	6,411,772.7	500.3
CB-101	311	-83	600.0	507,664.2	6,411,509.7	501.0
CB-102	276	-85	600.0	507,663.9	6,411,509.2	501.6
CB-103	312	-75	87.0	507,757.4	6,411,777.7	500.4
CB-103A	312	-75	516.0	507,757.4	6,411,777.7	500.4
CB-104	311	-81	540.0	507,758.3	6,411,828.6	512.5
CB-105	300	-85	552.0	507,731.3	6,411,763.8	500.6
CB-106	297	-82	33.0	507,757.1	6,411,828.8	512.5
CB-106A	297	-82	21.0	507,757.1	6,411,828.8	512.5
CB-106B	296	-82	529.2	507,757.1	6,411,828.8	512.5
CB-107	307	-80	21.0	507,731.7	6,411,764.3	500.6
CB-107A	307	-80	529.5	507,731.7	6,411,764.3	500.6
CB-107A-1	307	-80	498.0	507,731.7	6,411,764.3	500.6
CB-108	316	-74	55.3	507,703.1	6,411,368.2	540.5
CB-108A	316	-73	651.0	507,703.1	6,411,368.2	540.5
CB-108A-1	316	-73	651.0	507,703.1	6,411,368.2	540.5
CB-109	307	-66	561.0	508,160.7	6,412,196.5	517.3
CB-109-1	307	-66	555.0	508,160.7	6,412,196.5	517.3
CB-109-1 CB-110	307	-67.5	36.0	508,168.8	6,412,222.7	517.3
CB-110A	307	-67.5	549.0	508,168.8	6,412,222.7	516.9
CB-110A-1	307	-67.5			6,412,222.7	
			555.0	508,168.8		516.9
CB-111	307	-68	33.0	508,171.7	6,412,220.5	517.1
CB-111A	307	-68	543.0	508,171.7	6,412,220.5	517.1
CB-112	323	-79	549.0	507,638.4	6,411,487.8	500.6
CB-112-1	323	-79	538.0	507,638.4	6,411,487.8	500.6
CB-113	307	-81	540.0	507,638.4	6,411,487.8	500.6
CB-114	307	-68	32.0	508,148.3	6,412,184.9	517.9
CB-114A	308	-68.5	32.0	508,148.3	6,412,184.9	517.9
CB-114B	310	-68.5	32.0	508,148.3	6,412,184.9	517.9
CB-114C	308	-68.5	548.0	508,148.3	6,412,184.9	517.9
CB-114C-1	308	-68.5	542.0	508,148.3	6,412,184.9	517.9

Drill hole ID	Azimuth	Dip	Length	Easting*	Northing*	Elevation		
	Azimum		(metre)	(metre)	(metre)	(metre)		
CB-115	310	-80	486.0	507,702.4	6,411,746.9	500.5		
CB-116	310	-66.5	33.0	508,132.7	6,412,168.2	518.0		
CB-116A	310	-66.5	540.0	508,132.7	6,412,168.2	518.0		
CB-116A-1	310	-66.5	531.0	508,132.7	6,412,168.2	518.0		
CB-116A-2	310	-66.5	537.0	508,132.7	6,412,168.2	518.0		
CB-117	310	-78	516.0	507,730.0	6,411,723.0	500.0		
CB-118	306	-67	534.0	508,114.2	6,412,143.2	517.8		
CB-118-1	306	-67	558.0	508,114.2	6,412,143.2	517.8		
CB-118-2	306	-67	532.3	508,114.2	6,412,143.2	517.8		
CB-119	308	-69	39.0	508,186.8	6,412,237.4	516.8		
CB-119A	305	-67	30.0	508,186.8	6,412,237.4	516.8		
CB-119B	305	-67	565.0	508,186.8	6,412,237.4	516.8		
CB-120	304	-70	549.0	508,096.3	6,412,118.9	519.6		
CB-120-1	304	-70	525.0	508,096.3	6,412,118.9	519.6		
CB-121	304	-70	531.0	508,057.0	6,412,088.7	519.6		
CB-122	305	-63.5	561.0	508,076.7	6,412,104.5	519.3		
CB-122-1	305	-63.5	372.0	508,076.7	6,412,104.5	519.3		
CB-122-2	305	-63.5	540.0	508,076.7	6,412,104.3	519.3		
CB-123	305	-73	594.0	508,141.0	6,412,177.1	517.8		
CB-124	303	-63	597.0	508,339.4	6,412,363.4	516.7		
CB-125	308	-75	525.4	508,287.3	6,412,552.7	500.2		
CB-126	308	-76	531.0	508,393.5	6,412,668.3	500.2		
CB-127	302	-78	540.0	508,502.5	6,412,841.5	500.2		
CB-128	304	-78	534.0	508,589.0	6,412,896.6	500.2		
CB-129	306	-77.5	506.8	508,124.3	6,412,302.6	501.8		
CB-130	304	-69	525.0	508,024.7	6,412,051.5	519.8		
CB-131	300	-70	542.0	507,967.4	6,411,967.0	514.7		
CB-132	300	-75	522.0	507,899.0	6,411,928.0	515.3		
CB-133	300	-80	520.4	507,804.3	6,411,877.4	514.1		
CB-134	301	-80	528.0	507,841.7	6,411,911.7	516.1		
Total			36,387.7					

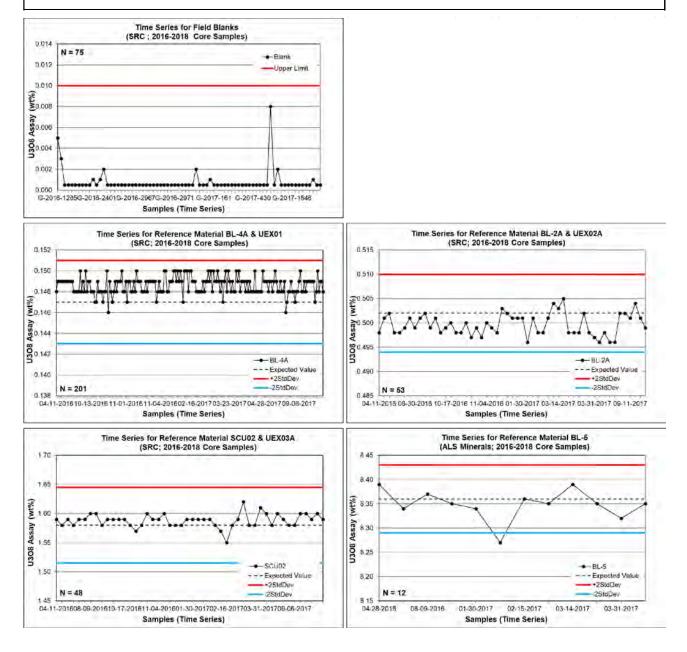
Summary Characteristics of Drilling (UEX) (2/2)

\* UTM NAD83 Zone13 North

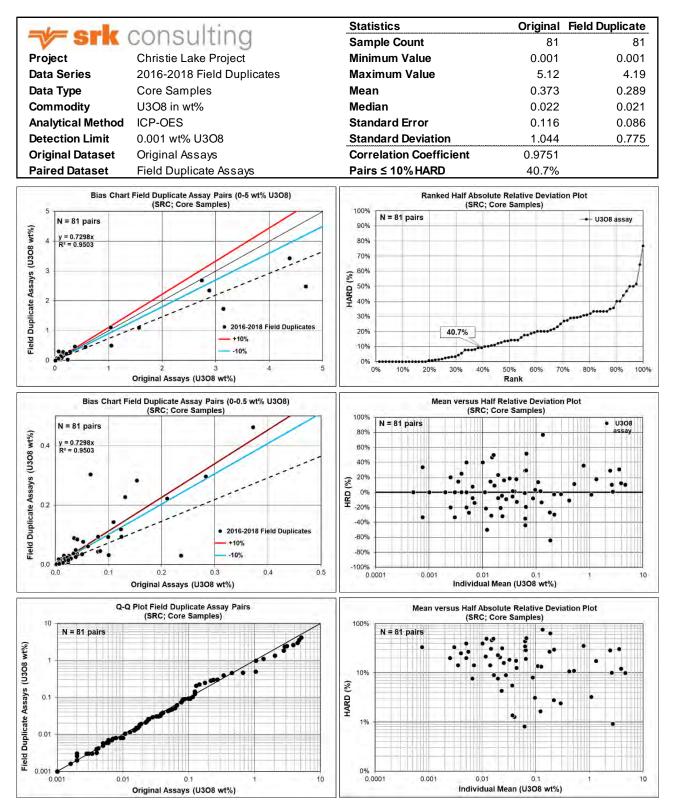
# **APPENDIX D**

Analytical Quality Control Data and Relative Precision Charts Time Series Plots for Blank Material and Certified Reference Material Samples Assayed by SRC Laboratory in Saskatoon, Saskatchewan, Canada, Between 2016 and 2018.

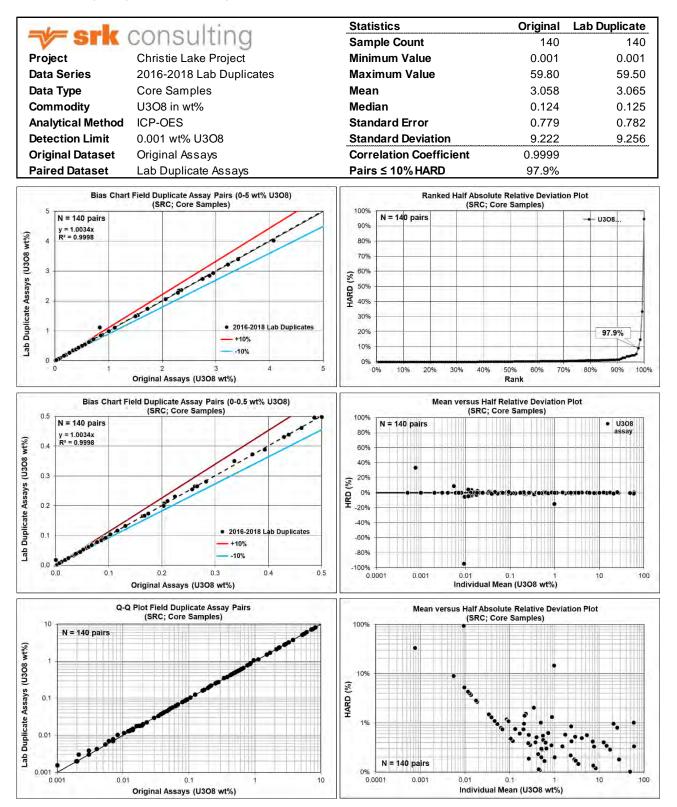
=/= crl	consulting						
V SIN	consulting	Statistics	Blank	BL-4A	BL-2A	SCU02	BL-5
Project	Christie Lake Project	Sample Count	75	201	53	48	12
Data Series	2016-2018	Expected Value	0.001	0.15	0.50	1.58	8.36
Data Type	Core Samples	Standard Deviation	-	0.002	0.004	0.033	0.035
Commodity	U <sub>3</sub> O <sub>8</sub> in wt%	Data Mean	0.001	0.15	0.50	1.59	8.35
Laboratory	SRC	Outside 2StdDev/UL	0%	0%	0%	0%	8%
Analytical Method	ICP-OES	Below 2StdDev	-	0	0	0	1
Detection Limit	0.001 wt%	Above 2StdDev	-	0	0	0	0
Laboratory Analytical Method	SRC ICP-OES	Outside 2StdDev/UL Below 2StdDev	0%	0% 0	0% 0	0% 0	-



Time Series Plots for Certified Reference Material Samples Assayed by SRC Laboratory in Saskatoon, Saskatchewan, Canada, Between 2016 and 2018.

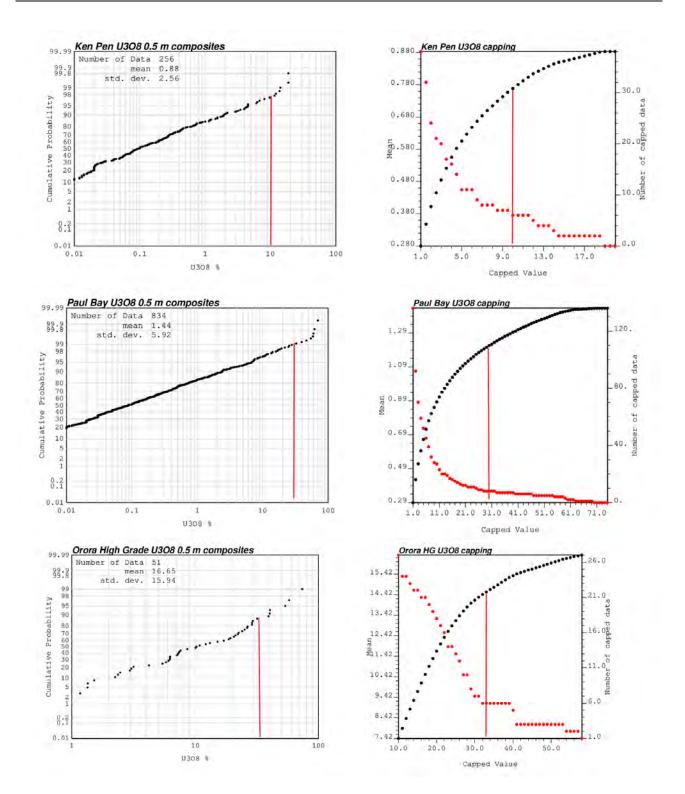


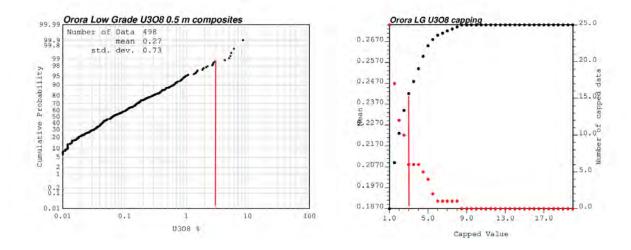
Bias Charts and Precision Plots for Lab-internal Pulp Duplicates (Lab Checks), Core Samples, Assayed by SRC Laboratory in Saskatoon, Saskatchewan, Canada Between 2016 and 2018.



# **APPENDIX E**

**Capping Analysis** 





To Accompany the report entitled: **Technical Report for the Christie Lake Uranium Project, Saskatchewan, Canada** with an effective date of December 13, 2018 and a signature date of February 1, 2019.

I, Glen Cole, do hereby certify that:

- 1) I am a Principal Consultant (Resource Geology) with the firm of SRK Consulting (Canada) Inc. (SRK) with an office at Suite 1500, 155 University Avenue, Toronto, Ontario, Canada;
- 2) I am a graduate of the University of Cape Town in South Africa with a BSc (Hons) in Geology in 1983; I obtained a MSc (Geology) from the University of Johannesburg in South Africa in 1995 and a MEng in Mineral Economics from the University of the Witwatersrand in South Africa in 1999. I have practiced my profession continuously since 1986. Between 1986 and 2005, I worked at several exploration projects, underground and open pit mining operations in Africa and held various senior positions, with the responsibility for estimation of Mineral Resources and Mineral Reserves for development projects and operating mines. Since 2006, I have estimated and audited Mineral Resources for a variety of early and advanced international base and precious metals projects;
- 3) I am a professional Geoscientist registered with the Association of Professional Engineers & Geoscientists of Saskatchewan (APEGS# 26003) and with the Association of Professional Geoscientists of Ontario (APGO#1416);
- 4) I have personally inspected the subject project during September 18 to September 21, 2018;
- 5) I have read the definition of Qualified Person set out in National Instrument 43-101 and certify that by virtue of my education, affiliation to a professional association, and past relevant work experience, I fulfill the requirements to be a Qualified Person for the purposes of National Instrument 43-101 and this technical report has been prepared in compliance with National Instrument 43-101 and Form 43-101F1;
- 6) I, as a Qualified Person, I am independent of the issuer as defined in Section 1.5 of National Instrument 43-101;
- 7) I am the co-author of this report and responsible for the Executive Summary and sections 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 14, 15 and 18, and accept professional responsibility for those sections of this technical report;
- 8) I have had no prior involvement with the subject property for UEX Corporation;
- 9) I have read National Instrument 43-101 and confirm that this technical report has been prepared in compliance therewith;
- 10) SRK Consulting (Canada) Inc. was retained by UEX Corporation to prepare a technical audit of the Christie Lake Uranium Project. In conducting our audit, a gap analysis of project technical data was completed using CIM *Estimation of Mineral Resources and Mineral Reserves Best Practice Guidelines* and Canadian Securities Administrators National Instrument 43-101 guidelines. The preceding report is based on a site visit, a review of project files and discussions with UEX Corporation personnel;
- 11) I have not received, nor do I expect to receive, any interest, directly or indirectly, in the Christie Lake Project or securities of UEX Corporation; and
- 12) That, as of the date of this certificate, to the best of my knowledge, information and belief, this technical report contains all scientific and technical information that is required to be disclosed to make the technical report not misleading.

Toronto, Ontario February 1, 2019 ["Original signed and sealed"] Glen Cole, P.Geo. (APEGS# 26003 and APGO#1416) Principal Consultant (Resource Geology)

To Accompany the report entitled: **Technical Report for the Christie Lake Uranium Project**, **Saskatchewan**, **Canada** with an effective date of December 13, 2018 and a signature date of February 1, 2019.

I, Aleksandr Mitrofanov, do hereby certify that:

- 1) I am a Senior Consultant (Resource Geology) with the firm of SRK Consulting (Canada) Inc. (SRK) with an office at Suite 1500, 155 University Avenue, Toronto, Ontario, Canada;
- 2) I am a graduate of Moscow State University, where in 2013 I obtained a doctorate in geology, in 2010 I obtained a MSc and in 2008, a BSc. I have practiced my profession continuously since 2009. I have experience in exploration projects, geological modelling and mineral resource estimation. Since joining SRK Consulting in 2013, my responsibilities have included geological and structural modelling, preparation of geological chapters on mineral resources for 43-101 and JORC-code reports: scoping study, pre-feasibility study, feasibility study and all other geological activities;
- 3) I am a professional Geologist registered with the Association of Professional Geoscientists of Ontario (APGO#2824);
- 4) I have not personally visited the project area;
- 5) I have read the definition of Qualified Person set out in National Instrument 43-101 and certify that by virtue of my education, affiliation to a professional association, and past relevant work experience, I fulfill the requirements to be a Qualified Person for the purposes of National Instrument 43-101 and this technical report has been prepared in compliance with National Instrument 43-101 and Form 43-101F1;
- 6) I, as a Qualified Person, I am independent of the issuer as defined in Section 1.5 of National Instrument 43-101;
- 7) I am the co-author of this report and responsible for 13.1-13.6, 16, 17 and accept professional responsibility for those sections of this technical report;
- 8) I have had no prior involvement with the subject property for UEX Corporation;
- 9) I have read National Instrument 43-101 and confirm that this technical report has been prepared in compliance therewith;
- 10) SRK Consulting (Canada) Inc. was retained by UEX Corporation to prepare a technical audit of the Christie Lake Uranium Project. In conducting our audit, a gap analysis of project technical data was completed using CIM *Estimation of Mineral Resources and Mineral Reserves Best Practice Guidelines* and Canadian Securities Administrators National Instrument 43-101 guidelines. The preceding report is based on a site visit, a review of project files and discussions with UEX Corporation personnel;
- 11) I have not received, nor do I expect to receive, any interest, directly or indirectly, in the Christie Lake Project or securities of UEX Corporation; and
- 12) That, as of the date of this certificate, to the best of my knowledge, information and belief, this technical report contains all scientific and technical information that is required to be disclosed to make the technical report not misleading.

Toronto, Ontario February 1, 2019 ["Original signed and sealed"] Aleksandr Mitrofanov, P.Geo. (APGO#2824) Senior Consultant (Resource Geology)

To Accompany the report entitled: **Technical Report for the Christie Lake Uranium Project, Saskatchewan, Canada** with an effective date of December 13, 2018 and a signature date of February 1, 2019.

I, David Machuca, do hereby certify that:

- 1) I am a Senior Consultant (Geostatistics) with the firm of SRK Consulting (Canada) Inc. (SRK) with an office at Suite 1500, 155 University Avenue, Toronto, Ontario, Canada;
- 2) I am a graduate of the University of Alberta in 2010, with a doctorate in Mining Engineering (Geostatistics). In 2002 I graduated from MINES ParisTech Fontainebleau with a MEng in Mining Geostatistics. In 2000 I graduated from Pontificia Universidad Católica del Perú, Lima, with a BSc in Mining Engineering. I have practiced my profession continuously since 2000. I specialize in geostatistical resource modelling, evaluation and auditing for various types of deposits, metals and energy resources, including base metals in skarn deposits, narrow vein, and disseminated gold deposits. My areas of expertise are geostatistical resource estimation and simulation, and the development of geostatistical algorithms and applications;
- 3) I am a professional Engineer registered with Professional Engineers Ontario (PEO#100508889);
- 4) I have not personally visited the project area;
- 5) I have read the definition of Qualified Person set out in National Instrument 43-101 and certify that by virtue of my education, affiliation to a professional association, and past relevant work experience, I fulfill the requirements to be a Qualified Person for the purposes of National Instrument 43-101 and this technical report has been prepared in compliance with National Instrument 43-101 and Form 43-101F1;
- 6) I, as a Qualified Person, I am independent of the issuer as defined in Section 1.5 of National Instrument 43-101;
- 7) I am the co-author of this report and responsible for sections 13.7 to 13.14 and accept professional responsibility for those sections of this technical report;
- 8) I have had no prior involvement with the subject property for UEX Corporation;
- 9) I have read National Instrument 43-101 and confirm that this technical report has been prepared in compliance therewith;
- 10) SRK Consulting (Canada) Inc. was retained by UEX Corporation to prepare a technical audit of the Christie Lake Uranium Project. In conducting our audit, a gap analysis of project technical data was completed using CIM *Estimation of Mineral Resources and Mineral Reserves Best Practice Guidelines* and Canadian Securities Administrators National Instrument 43-101 guidelines. The preceding report is based on a site visit, a review of project files and discussions with UEX Corporation personnel;
- 11) I have not received, nor do I expect to receive, any interest, directly or indirectly, in the Christie Lake Project or securities of UEX Corporation; and
- 12) That, as of the date of this certificate, to the best of my knowledge, information and belief, this technical report contains all scientific and technical information that is required to be disclosed to make the technical report not misleading.

Toronto, Ontario February 1, 2019 ["Original signed and sealed"] David Machuca, P.Eng. (PEO#100508889) Senior Consultant (Geostatistics)

To Accompany the report entitled: **Technical Report for the Christie Lake Uranium Project**, **Saskatchewan**, **Canada** with an effective date of December 13, 2018 and a signature date of February 1, 2019.

I, Christopher Hamel, do hereby certify that:

- 1) I am Chief Geologist with the firm of UEX Corporation with an office at Unit 200, 3530 Millar Avenue, Saskatoon, Saskatchewan, Canada;
- 2) I am a graduate of the University of Saskatchewan in 2001, I obtained a B.Sc. Geology. I have practiced my profession continuously since June 2001. My experience that is relevant to the scope of this Technical Report is:
  - Chief Geologist for UEX Corporation July 2017 to present where I support field activities and perform generative and evaluative work for the company;
  - Contract Geologist for UEX Corporation from January 2017 to June 2017 where I participated in the execution of the Christie Lake field program;
  - Contract Geologist Forum Uranium November 2016 participated in the uranium exploration field program at the Clearwater Project;
  - District Geologist, Cameco Corporation from April 2012 to October 2016 where I supervised field teams and helped to direct uranium exploration field programs in Eastern Athabasca basin, Saskatchewan;
  - Project Geologist, Cameco Corporation from April 2008 to March 2012 where I was responsible for the management of uranium field exploration programs in northern Saskatchewan;
  - Exploration Geologist, Cameco Corporation from April 2004 to March 2008 where I participated in the successful execution and management of uranium field exploration programs;
  - Exploration Geologist, De Beers Canada Exploration from June 2001 to March 2004 where I participated and managed in field exploration and resource evaluation programs focused on diamond exploration.
- 3) I am a professional Geoscientist registered with the Association of Professional Engineers & Geoscientists of Saskatchewan (APEGS#12985);
- 4) I have personally inspected the subject project and was on site; 31-January-2017 to 16-February-2017, 16-March-2017 to 30-March-2017, 29-June-2017 to 13-July-2017, 10-August-2017 to 24-August-2017, 27-January-2018 to 30-January-2018, 7-March-2018 to 10-March-2018, 18-August-2018 to 30-August-2018, and 6-September-2018 to 20-September-2018.
- 5) I have read the definition of Qualified Person set out in National Instrument 43-101 and certify that by virtue of my education, affiliation to a professional association, and past relevant work experience, I fulfill the requirements to be a Qualified Person for the purposes of National Instrument 43-101 and this technical report has been prepared in compliance with National Instrument 43-101 and Form 43-101F1;
- 6) I am employed by the issuer, UEX Corporation, and therefore am not independent of the issuer as defined in Section 1.5 of National Instrument 43-101;
- 7) I am the co-author of this report and contributed to sections 4, 6, 7, 8, 9, and 14 of this technical report;
- 8) I have had no involvement with the subject property prior to my employment at UEX Corporation;
- 9) I have read National Instrument 43-101 and confirm that this technical report has been prepared in compliance therewith;
- 10) As of the date of this certificate, to the best of my knowledge, information and belief, this technical report contains all scientific and technical information that is required to be disclosed to make the technical report not misleading.

["Original signed and sealed"]

Saskatoon, Saskatchewan February 1, 2019 Christopher Hamel, P.Geo. (APEGS#12985) Chief Geologist UEX Corporation