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## **1 SUMMARY**

Oberon Uranium Corp. (“Oberon”) is exploring the Element 92 Project (the “Property”) on the southern margin of the Athabasca Basin for uranium. The Project comprises a single Saskatchewan mineral claim disposition covering 5,961 hectares. Oberon holds 100% interest in the claim. The author completed a site visit June 21, 2022, by helicopter from Fort McMurray, Alberta. The Property is located within NTS map sheets 74G06, southwest of Cree Lake, and approximately 4 kilometres west of the English River Dene First Nation Cree Lake Cable Bay Indian Reserve no. 192, as well as approximately 270 kilometres northwest of La Ronge Saskatchewan (a city of about 5,000 people). E92 is 85 kilometres (km) west of the north end of all-year maintained gravel Saskatchewan Highway 914 that supplies the Key Lake Mine main camp operated by Cameco.

The Property has been the subject of industry and government uranium mineral exploration surveys since the late 1960s and 1970s, usually as part of much larger regional programs. Included in these surveys are airborne geophysics (magnetics, electromagnetics [EM] and radiometrics), mapping and surface prospecting as well as lake bottom sediments in Cable Bay. One of the largest programs to partially cover the Property was run by the Saskatchewan Mining Development Corporation (SMDC) which later evolved into Cameco Corp. Other relevant assessment work programs include the airborne geophysics survey on the Huskie Uranium Property, which comprised an airborne magnetics and radiometrics survey flown in 2007 (Mengong, 2008). This survey covered the

Property and surrounding areas. Also useful is the airborne natural field electromagnetics survey (AFMAG, using Mobile Magneto Tellurics; Campbell and Cookenboo, 2018) which covers the western half of the Property and areas further west, as well as a high-resolution magnetics and gamma-ray spectroscopy survey flown in 2017 (Campbell and Cookenboo, 2018).

No historical drilling has occurred on the Property, nor have any mineral resources or reserves have been estimated or reported on the Property.

The E92 Property straddles the boundary of the Athabasca Basin to the north and the Archean Hearne Craton to the south (Hoffman, 1988).

The Athabasca Basin hosts some of the world's most prolific uranium mines including the Cameco's high-grade McArthur River Uranium Mine (16.5%  $U_3O_8$  after allowance for dilution), which has been responsible for more than 14% of the world's supply. The McArthur River Uranium Mine, like other major mines or at Key Lake, Rabbit Lake, Cigar Lake, and McClean Lake, are in the eastern half of the Athabasca Basin where it overlies the Hearne Craton basement.

The Athabasca Basin is the erosional remnant of an unmetamorphosed, intracratonic Paleo- to Mesoproterozoic depocenter, filled by a thick succession of Athabasca Group sandstones (Raemakers, 1990). Preserved Athabasca Group sandstones are more than 1500 m thick as shown by drilling. However, the original depocenter was some 5 or 6 km thick before erosion (Alexandre *et al.*, 2005; Pagel *et al.*, 1980).

Most of the major uranium deposits of the Athabasca Basin occur at or near the basal unconformity and may extend as much as 500 m into crystalline basement.

Oberon has not completed any exploration on the Property, nor estimated any mineral resources or reserves.

The E92 Property covers a 6.5 kilometre wide section of the southern boundary of the Athabasca Basin, as well as basement rocks to the south, and basin sandstones and conglomerates to the north. The Property covers several magnetic linears reasonably interpreted as structural features, and a high-conductivity zone located at the southern boundary of the Athabasca Basin. The combination of likely structural features interpreted from the geophysics, and conductive zones from the EM data give the Property uranium-hosting potential warranting exploration follow-up, in the opinion of the author.

Further definition of structures and conductive zones using ground gravity, ground EM and geological mapping may lead to future drill targets, in the opinion of the author. The author considers the E92 Property early stage, but a property of merit regarding additional exploration work.

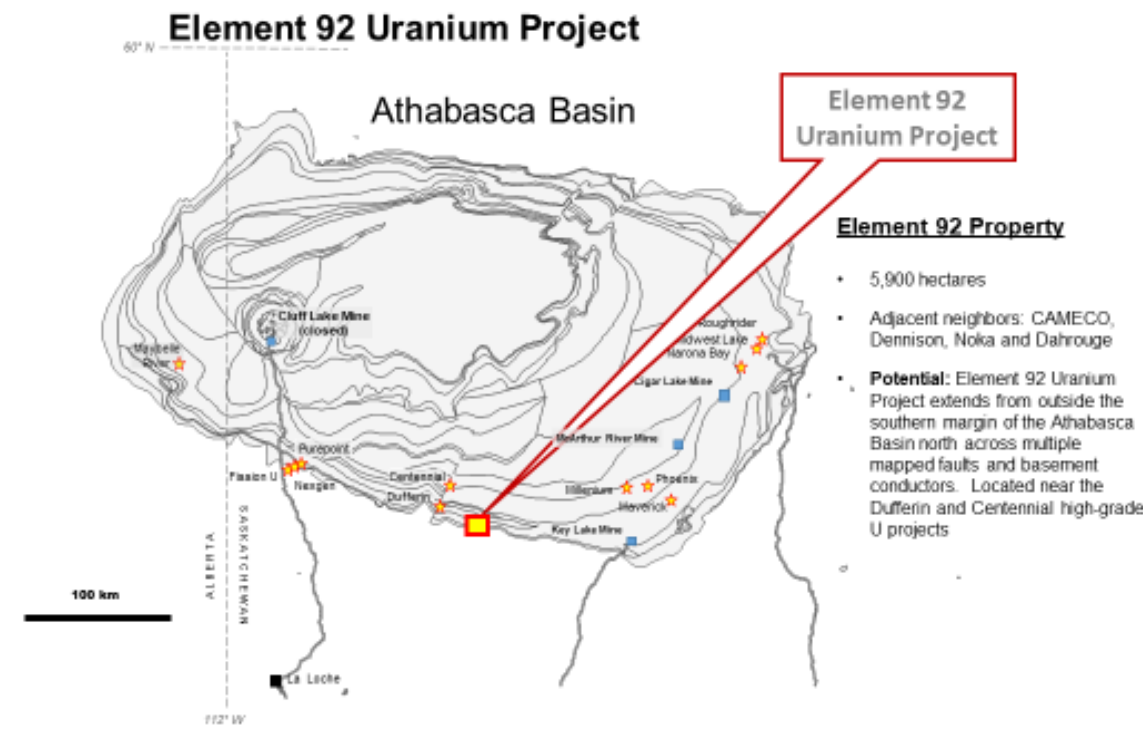
The author recommends an initial stage of fieldwork focussed on geologic mapping, both north and south of the Athabasca Basin boundary, as well as geophysical surveys including ground EM and gravity. Potential targets identified from this surface work could become drill targets in Phase 2, depending on the results of Phase 1 exploration.

## 2 INTRODUCTION

Oberon Uranium Corp. (“Oberon”) is exploring the Element 92 Project (“E92” or the “Property”) on the southern margin of the Athabasca Basin for uranium. Oberon contracted the author to prepare this technical report describing the geology and exploration potential of the Property to the standards of Canadian National Instrument 43-101, including all relevant exploration work completed to date, in support of Oberon’s listing to become an issuer on the Canadian Securities Exchange (CSE). The author is a Qualified Person for the preparation of NI 43-101 technical reports as defined in the CIM guidelines, based on his education and experience. The author has worked on uranium exploration projects along the southwestern margin of the Athabasca Basin, including site visits and drilling, and on past held claims in the Property area but without visiting the area. The author is independent of Oberon and its related parties, and holds no interest in any properties in the area. A personal inspection of the Property was completed by the author between June 20 and 22, 2022, with the site visit occurring June 21 by helicopter from Fort McMurray, Alberta. The helicopter used was a Robinson 44, contracted through Access Helicopters, which has a base in Fort McMurray, as well as a station at the Big Bear Camp in Saskatchewan, north of Patterson Lake, where we refueled. Further details on the site visit are provided in the Data Verification section later. The technical report presented herein is based on publically available government, academic and industry reports and data. Complete references are provide under the “References” heading later.

E92 is located on the southern margin of the Athabasca Basin in northern Saskatchewan (Fig. 1). The Athabasca Basin is famous as a source of uranium, with world-class, high-grade mines and deposits situated along the basin margins east and west of E92.

Figure 1: Location of the Property





### 3 RELIANCE ON OTHER EXPERTS

This 43-101 technical report has been prepared by the author for Oberon Uranium Corp. The technical information, opinions, conclusions and recommendations contained herein are based on:

- Information available to the author at the time of preparation of this report;
- Assumptions, conditions, and qualifications as set forth in this report; and
- Data, reports, and other information supplied by Oberon and third-party sources.

For the purpose of this report, the author has relied upon information provided by Oberon regarding ownership terms for the Property claim, which is registered as 100% owner Luke Montaine. Oberon provided the author a signed “Trust Declaration Agreement” showing Mr. Montaine holds claim MC00015797 in trust for Oberon with no beneficial interest. The claim is listed as in good standing according to the Saskatchewan government’s website [MARS](#).

The author has not further researched property title or mineral rights for the Element 92 Property and expresses no opinion as to the ownership status of the Property.

Except for the purposes legislated under provincial securities laws, any use of this technical report by any third party is at that party’s sole risk.

## 4 PROPERTY DESCRIPTION AND LOCATION

The Element 92 Uranium Project comprises a single Saskatchewan mineral claim disposition #MC00015797 covering 5,961 hectares (Fig. 2) on the southern margin of the Athabasca basin in northern Saskatchewan. The claim is shown as active on the Saskatchewan government website MARS, with an effective date of January 11, 2022, and a "good to" date of April 10, 2024 (Table 1). On the MARS website, the registered 100% owner is shown as Luke Montaine. Oberon provided the author a signed "Trust Declaration Agreement" showing Mr. Montaine holds claim MC00015797 in trust for Oberon with no beneficial interest. The claim is situated on crown land.

Table 1: Claim data.

Claim #	Area ha.	Status	Effective Date	Good to Date	Ownership
MC00015797	5,961	Active	11-Jan-22	10-Apr-24	Luke Montaine 100%

### ***Terms of the Agreement***

Oberon purchased 100% interest in the mineral claim for cash and shares, and reports that all payments are complete and shares issued, giving the Company 100% interest. No royalties, back-in rights or other encumbrances are reported by Oberon, or known to the author.

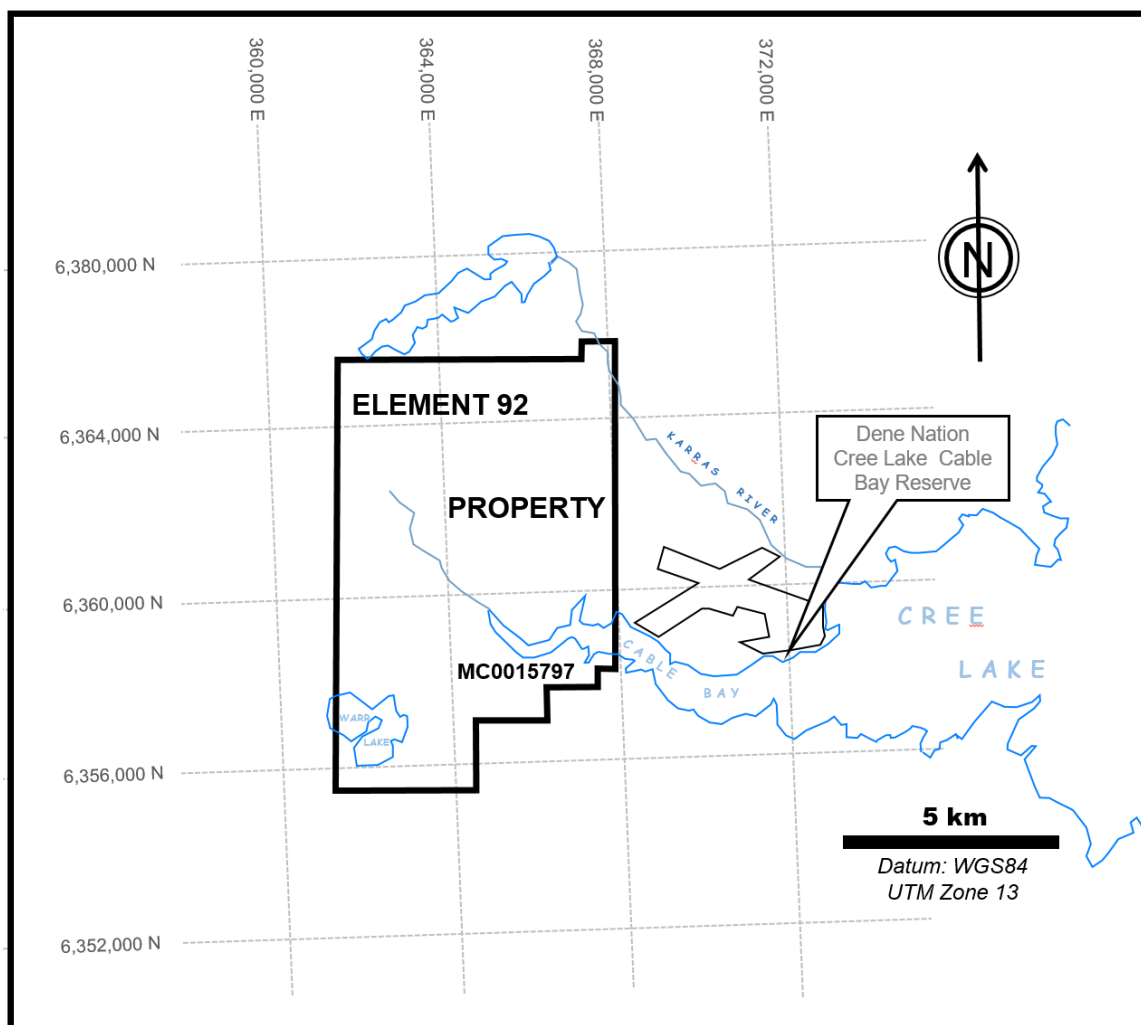
### ***Location of the mineral claim***

The Property is located within NTS map sheets 74G06, southwest of Cree Lake, and approximately 4 kilometres west of the English River Dene First Nation Cree Lake - Cable Bay Indian Reserve no. 192, as well as approximately 270

kilometres northwest of La Ronge Saskatchewan (a city of about 5,000 people). Cable Bay's western limits extend onto the Property. E92 is 85 kilometres (km) west of the north end of all-year maintained gravel Saskatchewan Highway 914 that supplies the Key Lake Mine main camp operated by Cameco. Key Lake is a former producing open pit uranium mine and its plant also processed MacArthur River ore until operations were suspended in 2018.

The Property is within the Northern Administration District, Northern Region II, Treaty 8 (1899).

Figure 2: Claims Map.



### ***Saskatchewan mineral rights***

Mineral exploration rights in Saskatchewan are granted as claims for not greater than 6,000 hectares on undisposed Crown lands. Claims are staked on the government's Mineral Administration Registry System (MARS) website since December 1, 2012, when Saskatchewan converted to map staking.

Claims are granted for 2 years, and are renewable based on completion of required amounts of exploration work (see the Mineral Tenure Registry Regulations – effective December 1, 2012). Exploration work including prospecting, airborne or ground geophysics, geological mapping, geochemistry, drilling, drill logging, and trenching or stripping is required to keep a claim in good standing. Exploration work expenditure requirements for a claim start with the second assessment work (through the 10th) period at \$15.00 per hectare. The requirement rises to \$25.00 per hectare for the 11th and all subsequent periods. A cash payment may be made to cover a deficiency in assessment work expenditure, or a refundable deposit can be made if the deficiency will be made up during the next assessment period. Assessment reports remain confidential for 3 years, or until lapsing of a mineral claim. Such claims in good standing can be converted to a mining lease good for 10 years and extendable for another 10 years.

Permits are generally required by the Saskatchewan Ministry of Environment and Saskatchewan Watershed Authority to conduct work such as drilling, building roads, bringing in power lines, battery sites or constructing pipelines, and compensation will be required for reclamation of the land. Additional permits

covering camp operation, forest product removal, and aquatic habitat protection will also be required depending on the particular exploration work being conducted. Permits may take up to 3 months to obtain from the government.

### ***Saskatchewan Royalties (effective December 1, 2012)***

The Saskatchewan government retains a uranium royalty with three components:

Basic royalty - 5% of gross revenue.

Profit royalty – Tiered Royalty rates increase from 10% to 15% as net profit increases.

Saskatchewan Resource Credit - a credit of 0.75% gross sales

Description of each of the above components from the Saskatchewan Government website:

#### **Tiered Royalty**

The Tiered Royalty will be based on net profits, with a two-tier rate structure. It will apply at rates of 10 per cent on net profits up to and including \$22 per kilogram, and 15 per cent on net profits above \$22 per kilogram. Basic Royalty is not deductible from Tiered Royalty payable.

Profit is calculated based on recognition of the full dollar value of capital, operating and direct project costs for current and future projects. Capital allowances calculated under the previous system for projects currently under construction will be granted as calculated under transition rules to the new system.

### **Saskatchewan Resource Credit (SRC)**

The SRC is a credit of 0.75% of gross sales value in the calculation of the Basic Royalty payment. The SRC was established to partially offset the Corporation Capital Tax Surcharge and is retained from the current system.

The Government of Saskatchewan approved a new uranium royalty system in the March 2013 budget. The new royalty regulations are currently under development and will provide an exact statement of regulation regarding uranium royalties. The uranium royalty system is enacted under The Crown Mineral Royalty Schedule of The Mineral Disposition Regulations, 1986. In the case of conflict between this summary and the provisions of the Regulations, the Regulations will apply.

There are no current environmental liabilities known or apparent to the author on any of the licenses. No previous mining activities have occurred on the properties, thus no liabilities from mining or waste disposal from mining might exist.

No other significant factors or risk are known to author that might be expected to affect access, title or the right or ability to perform work on the Property.

## **5 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY**

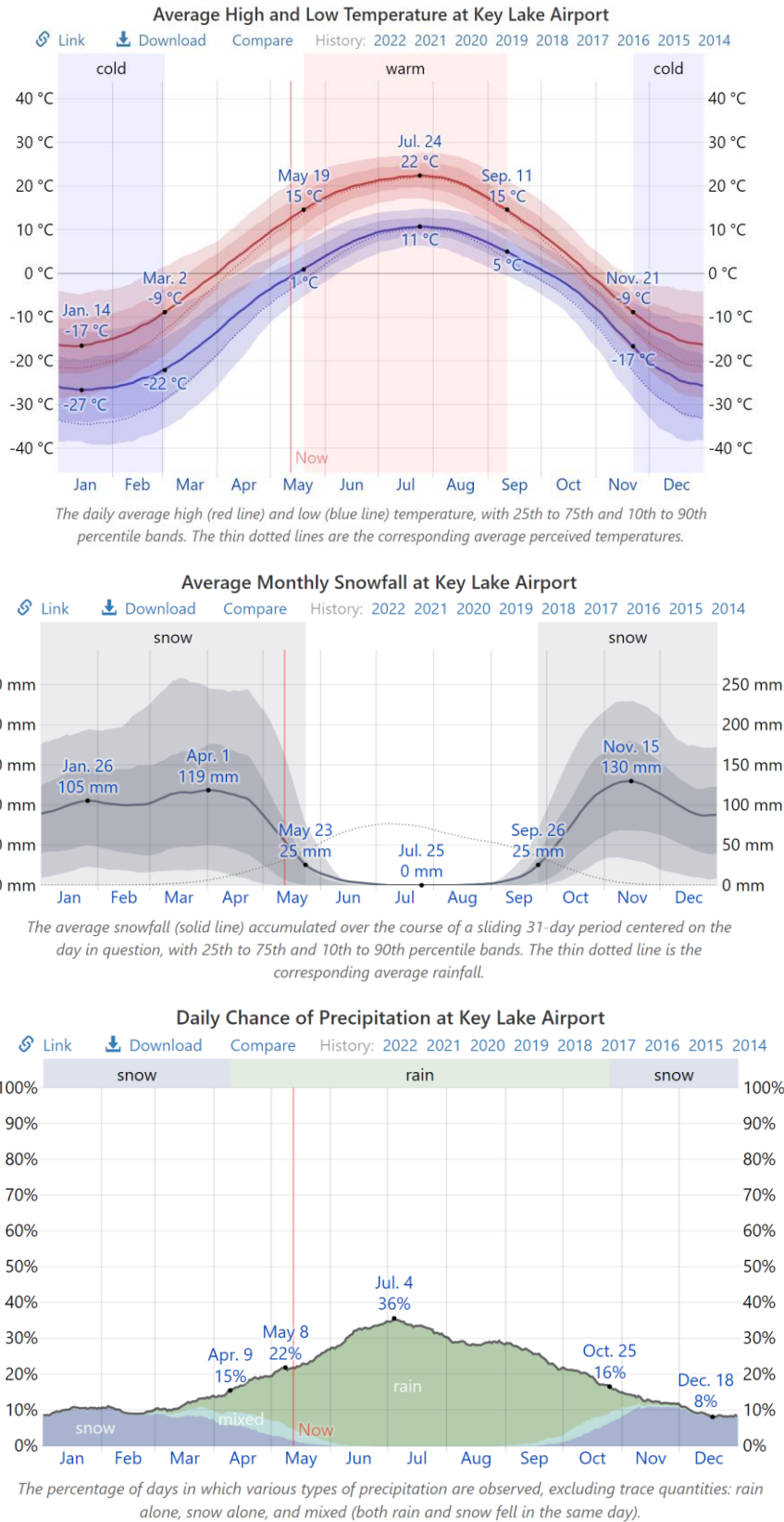
The Property covers flat-lying topography between 500 to 520 m elevation above sea level, including a portion of Cable Bay (part of Cree Lake), as well as smaller streams, lakes and sandy rises of glacial origin. Boreal forest including locally dense stands of black spruce with moss ground cover as well as birch, poplar, jack pine and tamarack overlies Canadian shield and glacial deposits. Open areas suitable for helicopter landing are scattered across the Property, concentrated near lakes and water courses as well as on sandy eskers and moraine.

The Property could be accessed on winter roads by snow machine from the Cree Lake and Cable Bay Dene Nation reserve in winter, or by helicopter from Fort McMurray, Alberta, La Ronge, Saskatchewan, or the Key Lake airport 85 kilometres to the east.

The nearest road access to the Property is Saskatchewan Highway 914, known as the Key Lake Highway, which reaches the Key Lake Mine airport approximately 85 kilometres east of the Property. From there, helicopter charter is the most feasible method to access the Property.

The cold winter conditions impose limits on work programs (Fig. 3). Mapping, surface sampling and prospecting are obviously limited to snow free areas and times of the year. Drilling with ground or helicopter support can occur throughout the year. Snow typically cover melts in May, but snow can accumulate again in significant quantities by mid-November.

Figure 3: Key Lake Airport Weather Station 85 kms east of the Property (www.weatherspark.com):





No mining has occurred on the Property, but the low-lying, rolling topography should prove suitable for any operations and tailings storage that might be required following future exploration efforts. Power lines do not occur on the Property. The Cree Lake – Cable Bay Dene Nation Reserve covers a former Canadian military base with an airstrip which may be available for use if landing fees can be negotiated with the Dene Nation.

The climate is characterized by cold winters and cool summers (Fig. 5). Winter snow accumulates to average monthly depths of over 25 cm by December, and typically persists on the ground until sometime in April. Winter temperatures average below  $-20^{\circ}\text{C}$  in January and February. Summer temperatures reach an average of  $15^{\circ}\text{C}$  in July and August.

Permits for surface rights access are required from the Saskatchewan government for various exploration work activities, as described in more detail earlier in the Property Description section.

## 6 HISTORY OF EXPLORATION

The Property has been the subject of industry and government uranium mineral exploration surveys since the late 1960s and 1970s, usually as part of much larger regional programs. Included in these surveys are airborne geophysics (magnetics, electromagnetics [EM] and radiometrics), mapping and surface prospecting as well as lake bottom sediments in Cable Bay. One of the largest programs to partially cover the Property was run by the Saskatchewan Mining Development Corporation (SMDC) which later evolved into Cameco Corp. The SMDC program extended from 1976 to 1982, and focused on prospecting, mapping and lake bed sampling in the Property area.

The studies are reported in the online Saskatchewan Mineral Assessment Database (SMAD) database, as summarized in Campbell and Cookenboo (2018). SMAD reports that covered part or all of the Property are listed in Table 2.

Table 2: Historical exploration work on the Property

<u>Date from</u>	<u>Date to</u>	<u>Company</u>	<u>Exploration work</u>	<u>Location Property</u>	<u>Highlights</u>	<u>Ref.</u>
1976	1982	Saskatchewan Mining Development Corporation	Prospecting, mapping, lake sediments	Partial coverage of Property	No detection of radioactive boulders on Property; lake sed 24	74G06-0030
2007	2008	Stikiine Gold Corporation - Huskie Uranium Property	Airborne magnetic and electromagnetic (GEOTEM) survey	Coverage entire Property	magnetic linears; possible faults	74G06-0038
2018	2018	Radio Fuels Corp.	Airborne geophysical survey using natural-field EM (AFMAG MobileMT or MMTMobileMT or MMT)	Coverage on western half of claim	Conductive zone identified at Athabasca Basin boundary zone	74G06-MAW 2736

Relevant assessment work programs include the airborne geophysics survey on the Huskie Uranium Property, which comprised an airborne magnetics and radiometrics survey flown in 2007 (Mengong, 2008). This survey covered the

Property and surrounding areas. Also useful is the airborne natural field electromagnetics survey (AFMAG, using Mobile Magneto Tellurics; Campbell and Cookenboo, 2018) which covers the western half of the Property and areas further west, as well as a high-resolution magnetics and gamma-ray spectroscopy survey flown in 2017 (Campbell and Cookenboo, 2018).

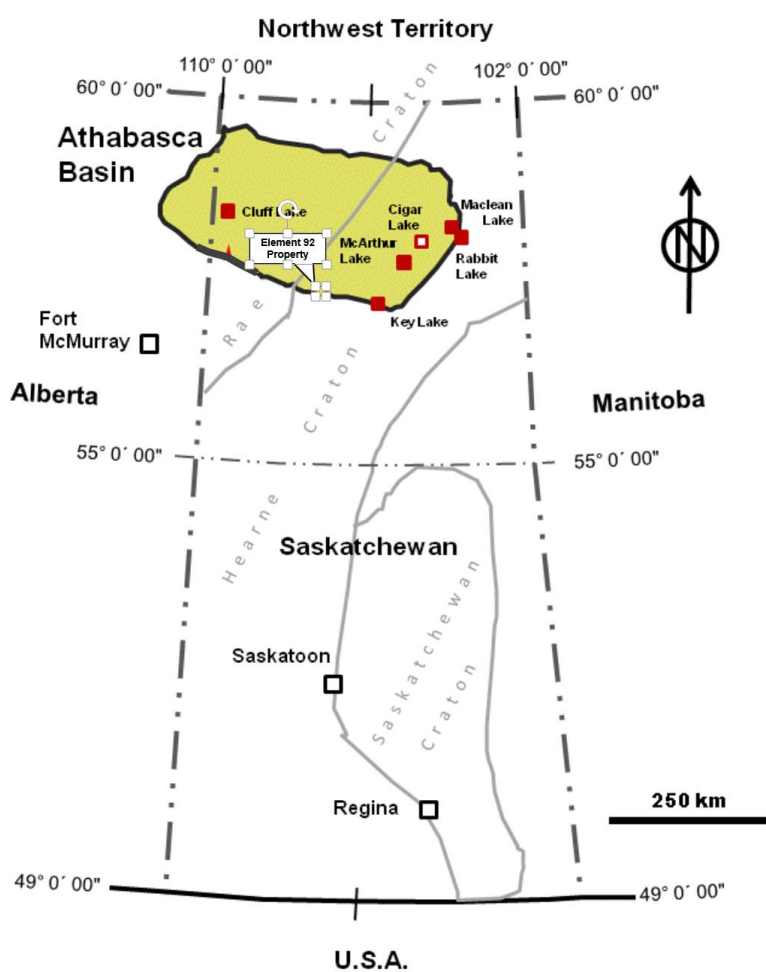
No drilling has occurred on the Property.

No mineral resources or reserves have been estimated or reported on the Property.

## 7 GEOLOGICAL SETTING AND MINERALIZATION

The E92 Property straddles the boundary of the Athabasca Basin to the north and the Archean Hearne Craton to the south (Hoffman, 1988; Fig. 4).

Figure 4: Lithostructural basement units, inferred from geophysics with uncertain boundaries. (After Scott and Slimmon, 1986 and the Saskatchewan GeoAtlas).



### ***Athabasca Basin***

The Athabasca Basin hosts some of the world's most prolific uranium mines including the Cameco's high-grade McArthur River Uranium Mine (16.5%  $U_3O_8$  after allowance for dilution), which has been responsible for more than 14% of the world's supply. The McArthur River Uranium Mine, like other major mines or

at Key Lake, Rabbit Lake, Cigar Lake, and McClean Lake, are in the eastern half of the Athabasca Basin where it overlies the Hearne Craton basement (Fig. 4). The Cluff Lake Uranium Mine is located in the western half of the Athabasca Basin, as is the Shea Creek deposit, overlying Rae Craton basement.

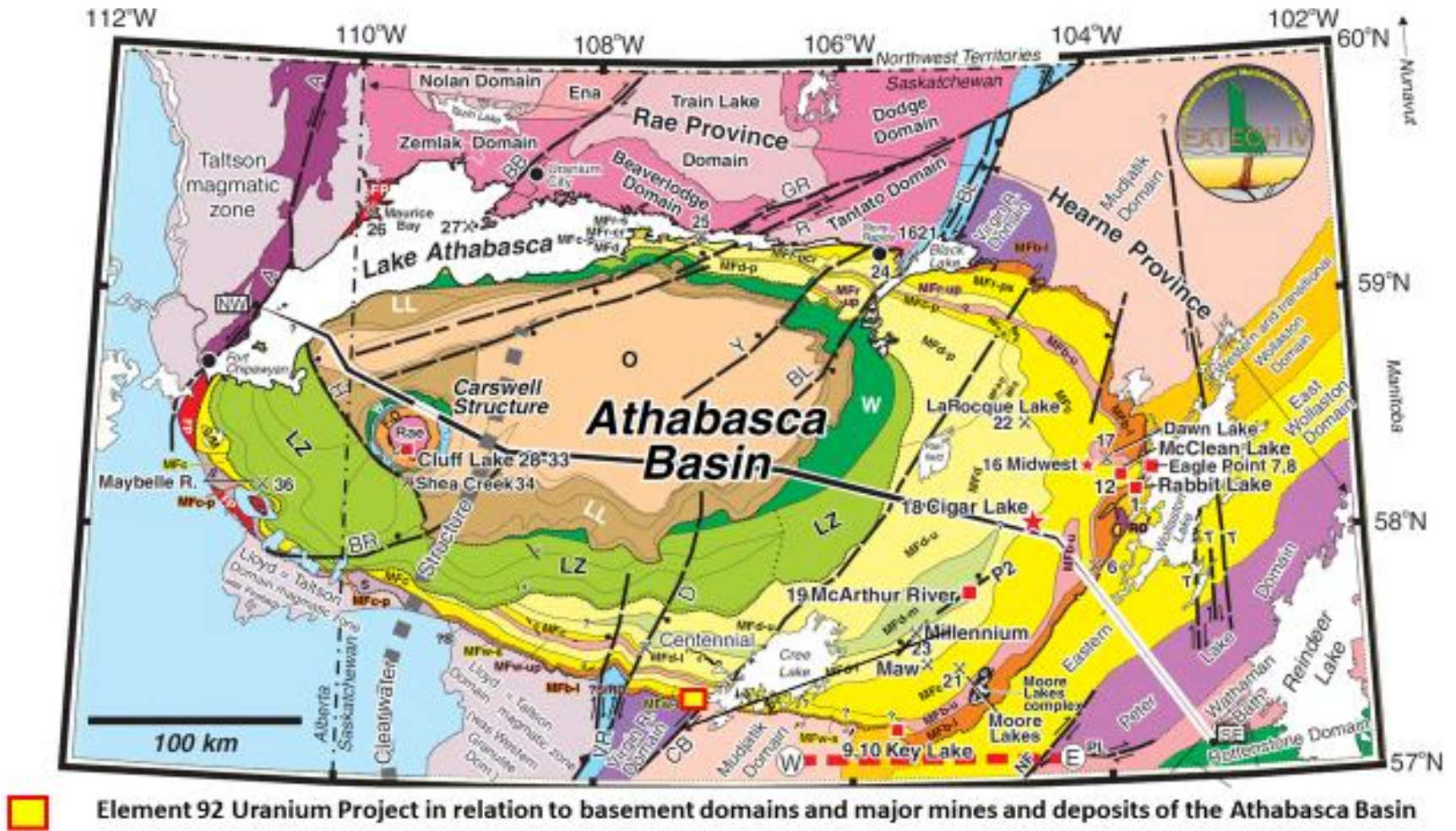
The Athabasca Basin is the erosional remnant of an unmetamorphosed, intracratonic Paleo- to Mesoproterozoic (Helikian) depocenter, filled by a thick succession of Athabasca Group sandstones (Raemakers, 1990; Wilson, 1985). The basin fill was sourced from the east, and emptied towards the west. Preserved Athabasca Group sandstones are more than 1500 m thick as shown by drilling. However, the original depocenter was some 5 or 6 km thick before erosion (Alexandre *et al.*, 2005; Pagel *et al.*, 1988).

Most of the major uranium deposits of the Athabasca Basin occur at or near the basal unconformity and may extend as much as 500 m into crystalline basement (Fig. 9). Regolith developed at top of basement, prior to deposition of the Athabasca Basin strata. The regolith is closely associated with uranium mineralization. Timing on regolith formation is loosely constrained by requiring at least enough time after metamorphism of the basement to allow 5,000 m of erosion, and then creation of the locally thick paleo-weathering surface before deposition of the Athabasca Group (Ramaekers, 1990).

### ***Archean Basement terranes***

The Archean Hearne Terrane is divided into several basement domains, with the Virgin River Domain (Fig. 5) exposed in the southern part of the Property,

Figure 5: Property area and Athabasca Basin geology map



felsic gneiss in the Property area. The Virgin River Domain extends approximately 5 km east from the Property boundary to the Cable Bay shear zone, which forms the contact with the Mudjatik Domain (Gilboy, 1985). The Virgin River and Mudjatik domains together are parts of the Hearne Craton, which underlies the eastern half of the Athabasca Basin.

### ***Pleistocene and Recent glacial deposits (overburden)***

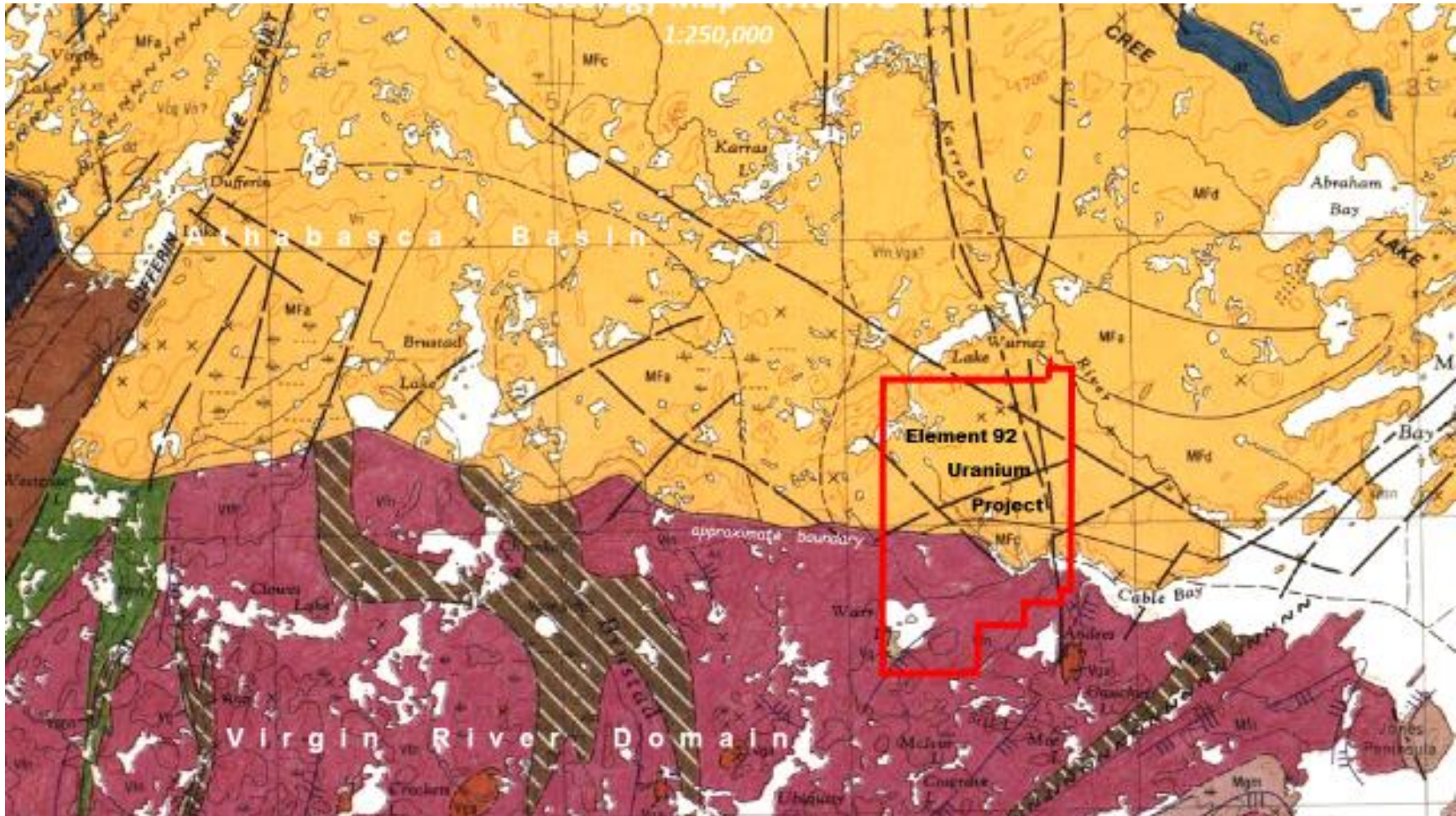
The front of Laurentide ice sheet retreated to the northeast past the Property about 10,000 years ago (Dyke and Prest, 1987). The ice left behind a thick blanket (60 to 80 m) of till, drumlins, eskers, moraine and glacio-fluvial and glaciolacustrine deposits covering Phanerozoic bedrock and crystalline basement. Notable among the glacial deposits is the Cree Lake moraine, which is an extensive end moraine, suggesting that retreat of the Laurentide ice front may have stalled in this area for some period. The main direction of glacial sediment transport is northwest (325°; Gilboy, 1984).

### ***Property Geology and Mineralization***

Sedimentary rocks of the Meso- to Paleoproterozoic Athabasca Basin cover the northern two-thirds of the Property, while Archean felsic gneiss and schist are mapped in the southern portion (Fig. 5). The Archean felsic gneiss belongs to the Virgin River Domain, and extend northward beneath the Athabasca Basin. Isopach data suggests the contact of the Virgin River domain felsic gneiss and overlying



Figure 5: Propety Geology and Stratigraphic Column.





Athabasca Basin reaches about 250 m below surface at the north end of the Property (Saskatchewan Mining and Petroleum Atlas website).

Sedimentary rocks of the Athabasca Basin are mainly fluviatile sandstones and conglomerates assigned to the Manitou Falls Group, and further sub-divided into formations, starting with the Bird Formation that overlies the Virgin River Domain metamorphic basement (Fig. 6). The Bird Formation comprises conglomeratic quartz arenite deposited in 5 upward fining units and covers the Property north from the southern boundary of the Athabasca Basin (Gilroy, 1985). The Bird Formation is overlain by arenites of the Warnes Formation, which cover the northern portion of the Property (Saskatchewan Mining and Petroleum Atlas website). Paleocurrent direction for the Manitou Falls Group is to the northwest across the Property (Gilroy, 1984). Maximum grain size ranges from greater than 16 mm at Cable Bay to less than 8 mm in the northwest part of the Property (Gilroy, 1984). An interpreted structural lineament (possible to probable fault) from airphotos and/or magnetic data extends north-northwest across the Property (approximately 350°), as do other lineaments oriented west-northwest and east-northeast (Fig. 7; Gilroy, 1985). No mineralization has been reported on the Property.

Figure 6: Property geology (arrows paleocurrent directions).

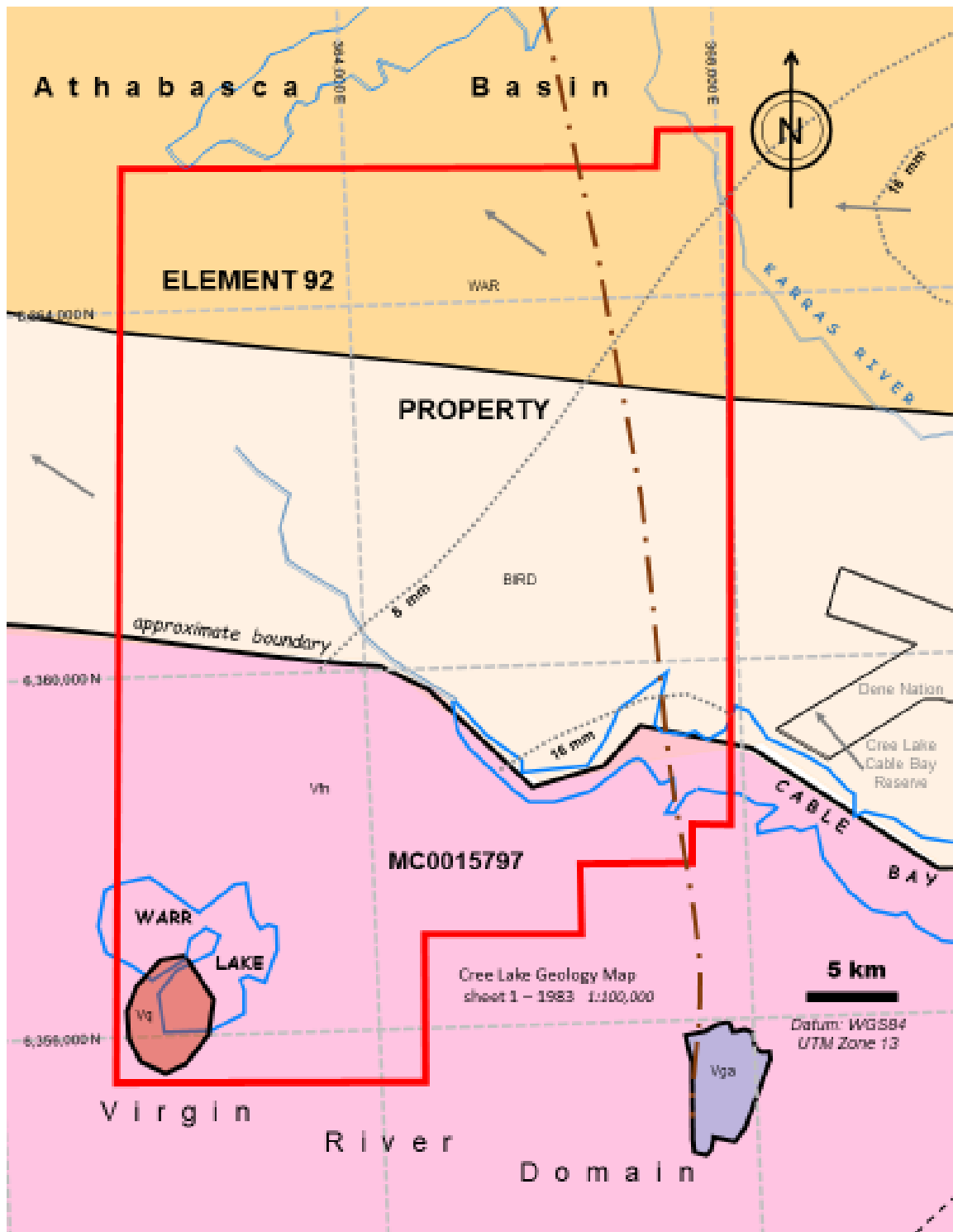


Figure 6 (cont.): Stratigraphic Column for Property Geology

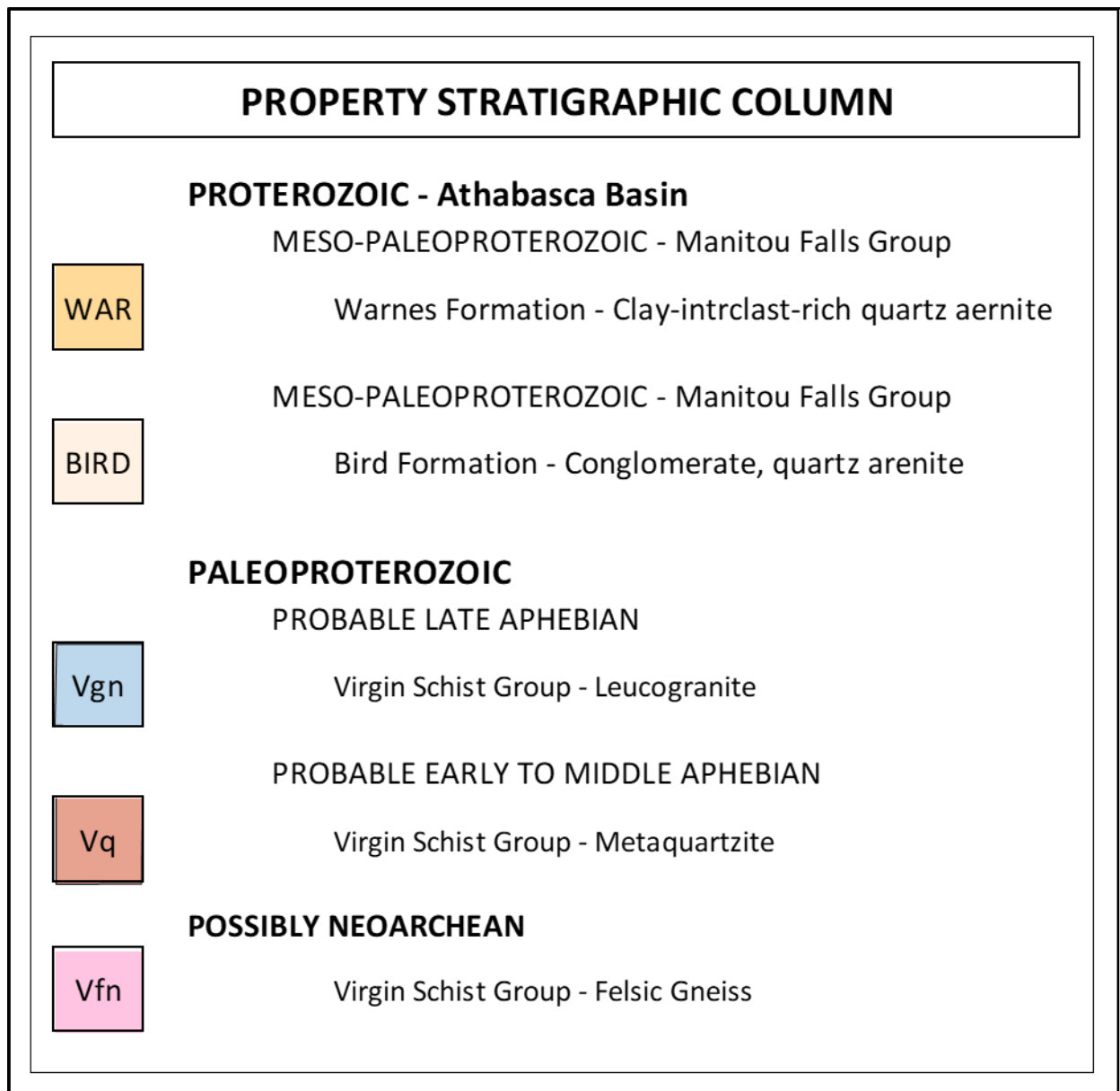
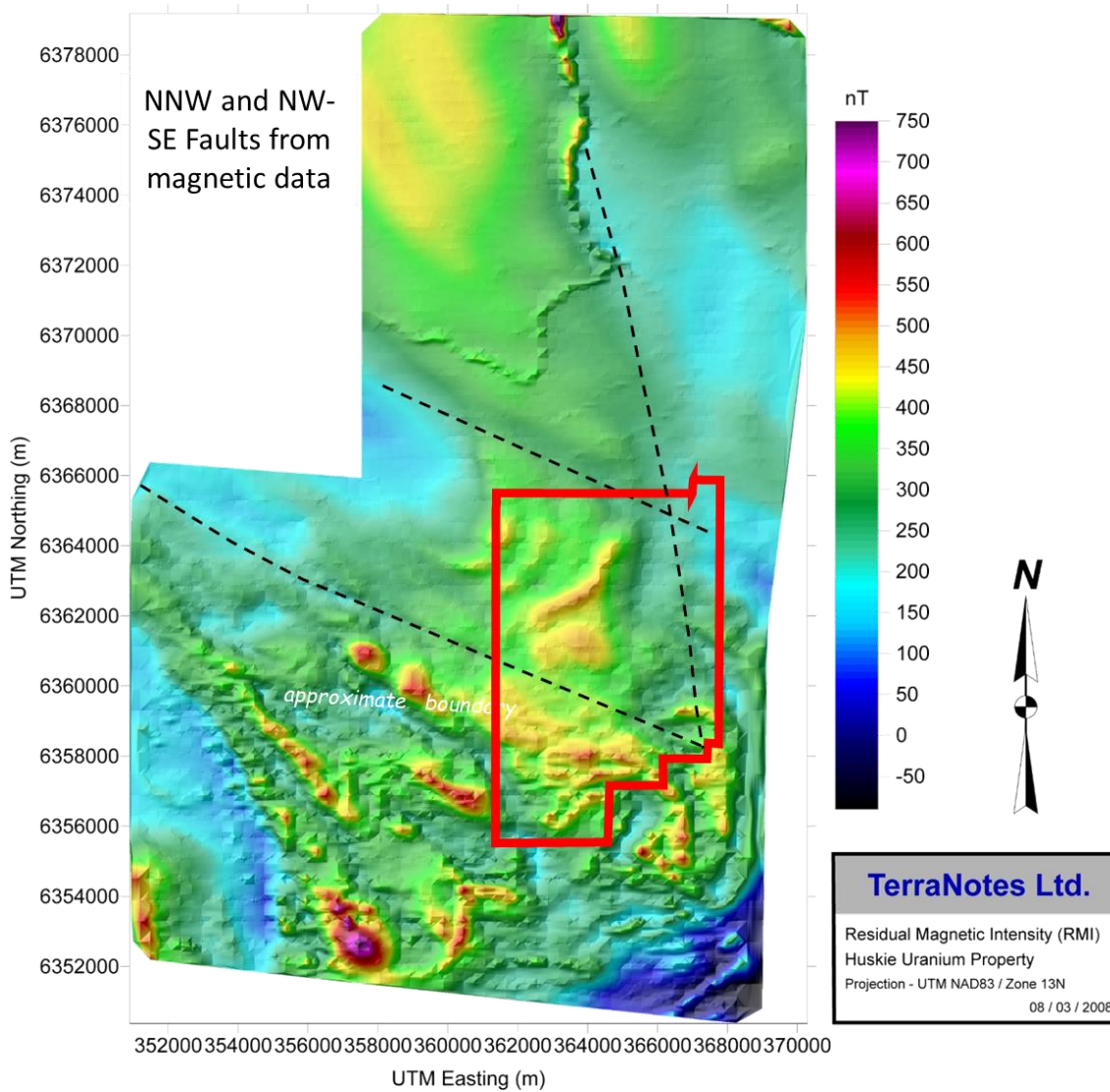


Figure7: Magnetic structures on Property.



## 8 DEPOSIT TYPES

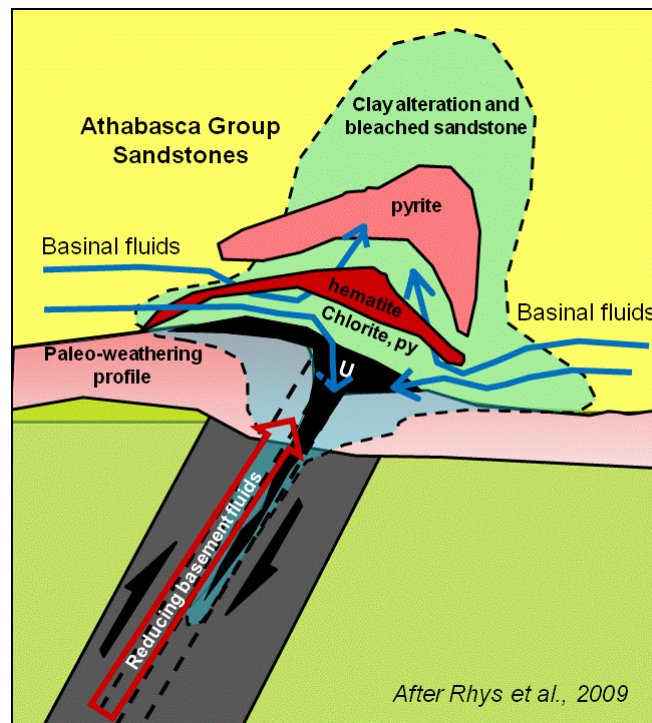
The Athabasca Basin is the most prolific source of high-grade uranium in the world.

High-grade uranium deposits in the Athabasca Basin occur near the basal unconformity of the Proterozoic sandstones and in basement granites and metamorphic rocks (Fig. 8). Basement and sediment hosted deposits are targets on the E92 Property, given the occurrence of lowermost Athabasca Basin sandstones of the Manitou Falls Formation, and exposed basement rocks outside the basin contact.

The following characteristics of basement hosted uranium deposits in the Athabasca basin are important for exploration:

- Association with basement conductors, which are commonly caused graphitic zones in fine grained metasedimentary units (pelites).
- Association with basement thrust faults, which serve as fluid flow conduits and may be marked by the graphitic conductors noted above.
- Association with deeply weathered basement regolith (paleo-weathering surfaces).
- Association with strong clay alteration, primarily illitic, and locally chloritic and kaolinitic. The clay alteration may be associated with diagenetic processes and burial heating of the Athabasca Basin sandstones.
- Association with mineralization haloes, including pyrite sulfide, hematite, euhedral quartz, dravite (tourmaline) and in some cases gold, as well as the clay alteration noted above.

Figure 8: Basement uranium mineralization model, after Rhys, *et al.*, 2009.



### ***Uranium from basinal fluids or basement***

Two possible sources of uranium are postulated for the Athabasca Basin deposits: one suggestion is that uranium derives from basement, and the alternative suggestion is that uranium is derived from basin sediments.

The basement origin seems logical in that uranium deposits in the Athabasca basin tend to be associated with basement structures and may extend as much as 500 m into the basement. However, it is not clear that sufficient uranium could be dissolved into basement fluids which are likely reducing. It is also not clear why different basement provinces across the Athabasca Basin should source such unusually high-grade deposits.

An attractive alternative is that the uranium was transported by basinal fluids in sandstones, and was deposited when those oxidized fluids mixed with reducing fluids extruded from basement structures. Under this scenario, burial diagenesis could transport uranium and other metals, possibly aided by humic acids generated from organic matter maturation (Cookenboo and Bustin, 1999), as has been postulated for mineralizing fluids in the southwestern Athabasca Basin (Alexandre and Kyser, 2006) and the Witwatersrand Basin (Horscroft *et al.*, 2011). Some authors have suggested that more than enough uranium would have been available by leaching feldspars from arkosic sandstones of the Athabasca Group.

Thus, uranium mineralization may be sourced by basinal fluids, with basement structures serving as a physical trap and basement fluids serving as a reducing chemical trap (Alexandre *et al.*, 2005; Alexandre *et al.*, 2012). Basement fluids by this reasoning are extruded along faults that preferentially occur in graphitic fine grained metasedimentary units (pelites).

## **9 EXPLORATION**

Oberon has not yet completed any exploration work on the Property.



## **10 DRILLING**

There has been no drilling on the Property.

## **11 SAMPLE PREPARATION, ANALYSES AND SECURITY**

No samples have been collected and/or analyzed by Oberon, nor reported in assessment work from the Property.

## 12 DATA VERIFICATION

The author has located the claims, geologic maps and geophysical survey maps on available satellite imagery (google earth) to verify their positions and relevance.

The author further verified access and geological mapping data on the Property during his helicopter site visit on June 21, 2022. Besides flying over much of the Property, the author landed at four sites on the mineral claim. Three of the four landing sites were within the mapped extents of the Athabasca Basin sandstones and were covered by a thick blanket of glacial sediment cover. No bedrock was visible. The fourth site was south of the Athabasca Basin limits near Warr Lake in the southwestern corner of the Property, close to outcrops of basement metaquartzites of the Virgin River Domain. The author verified the exposed metaquartzites were locally migmatized, as mapped. Typically, the helicopter had to locate an appropriate landing site free from trees or other obstacles that was often 0.5 to 1.5 kilometres from the site originally picked from satellite imagery, emphasizing issues that must be addressed when considering access.

Given the early stage of work, the author believes the data verification of the claims, geology and on site during the site visit is adequate and appropriate.

### **13 MINERAL PROCESSING AND METALLURGICAL TESTING**

No mineral processing, or metallurgical tests have been performed, given the early stage of work.

## **14 MINERAL RESOURCES ESTIMATES**

No mineral resource or reserves have been estimated for the Property.

**ITEMS 15 TO 22 – NOT APPLICABLE**

Items 15 through 22 are not addressed in this report because the Property is an early stage exploration property.

**23 ADJACENT PROPERTIES:**

No immediately adjacent properties are considered to be essential to understanding the potential of the E92 Property to host uranium mineralization.

## **24 OTHER RELEVANT DATA AND INFORMATION**

The author knows of no other relevant information needed for the purposes of this report, and believes that this report and its conclusions and recommendations are warranted, based on the information presented herein.



## **25 INTERPRETATION AND CONCLUSIONS**

The E92 Property covers a 6.5 kilometre wide section of the southern boundary of the Athabasca Basin, as well as basement rocks to the south, and basin sandstones and conglomerates to the north. The Property covers several magnetic linears reasonably interpreted as structural features, and a high-conductivity zone located at the southern boundary of the Athabasca Basin. The combination of likely structural features interpreted from the geophysics, and conductive zones from the EM data give the Property uranium-hosting potential warranting exploration follow-up, in the opinion of the author.

Further definition of structures and conductive zones using ground gravity, ground EM and geological mapping may lead to future drill targets, in the opinion of the author. Mapping should focus on identifying features associated with uranium mineralization elsewhere in or near the Athabasca Basin, such as intense clay alteration of basement regolith, mineralization haloes (including pyrite sulfide, hematite, euhedral quartz, dravite (tourmaline) and even gold), basement conductors, and conductive structures within the Athabasca Group sandstones and conglomerates. The author considers the E92 Property early stage, but a property of merit regarding additional exploration work.

## **26 RECOMMENDATIONS**

The author recommends a two phase exploration and evaluation program, with the second phase dependent on the results of the first phase. The initial stage of fieldwork would focus on geologic mapping, both north and south of the Athabasca Basin boundary (at least where surface sediment cover permits) as

well as geophysical surveys including ground EM and gravity to find structurally associated conductors and low-density regolith zone. Potential structural drill targets identified from this surface work could be drill targets in Phase 2, depending on the results of Phase 1 exploration.

***Phase 1 and Phase 2 recommended work program: (dependent on the results of Phase 1)***

Table 3: Recommended 2 phase expenditures (Phase 2 is dependent on Phase 1).

<b>Phase 1:</b>	
Compilation of geological database	\$ 15,000
Surface gravity survey and mapping program	\$ 85,000
Development of Phase 2 work program	\$ 10,000
Contingency 10%:	\$ 11,000
<b>Phase 1 Total</b>	<b>\$ 121,000</b>
<b>Phase 2:</b>	
Mapping and boulder sampling program	\$ 45,000
Drill estimated two targets	\$ 250,000
Contingency 10%:	\$ 4,500
<b>Phase 2 Total</b>	<b>\$ 299,500</b>
<b>E92 Uranium Project TOTAL: Phase 1 and Phase 2</b>	<b>\$ 420,500</b>

## 27 REFERENCES

- Alexandre, P., Kyser, K., and Polito, P., 2005. Alteration Mineralogy and Stable Isotope Geochemistry of Paleoproterozoic Basement-Hosted Unconformity-Type Deposits in the Athabasca Basin, Canada. *Economic Geology*, v. 100, p. 1547-1563.
- Alexandre, P., and Kyser, K., 2006. Geochemistry of uraniferous bitumen in the Southwest Athabasca Basin, Saskatchewan, Canada. *Society of Economic Geologists, Economic Geology*, v. 101, p. 1605-1612.
- Alexandre, P., Kyser, K., Jiricka, D., and Witt, P., 2012. Formation and Evolution of the Centennial Unconformity-Related Uranium deposit in the South-Central Athabasca Basin, Canada. *Economic Geology*, v. 107, p. 385-400. Campbell, C. and
- Cookenboo, H. C., 2017. Interpretation Report, Airborne Geophysical Survey Athabasca Properties, Athabasca Basin, Saskatchewan. MAW 2187, 167 p.
- Campbell, C. and Cookenboo, H. C., 2018. Airborne Geophysical Survey Interpretation and Historical Work Compilation Report Athabasca Basin, Saskatchewan. MAW 2376, 232 p.
- Cookenboo, H. O., and Bustin R. M., 1999. Pore water evolution in sandstones of the Groundhog coalfield, Northern Bowser Basin. *Sedimentary Geology*. 123, p. 129-146.
- Dyke, A.S., and Prest, V.K., 1987. Late Wisconsinian and Holocene History of the Laurentide Ice Sheet. *Geographie physique et Quaternaire*, v. 41, p 237 to 263 plus 4 map sheets.
- Gilboy, C.F., 1984. Basement Geology, Part of the Cree Lake (South) Area, Saskatchewan. Map 203A (Sheet 1) to accompany Report 203.
- Gilboy, C.F., 1985. Compilation Bedrock Geology Cree Lake, NTS Area 74G, Saskatchewan Energy and Mines, Report 237 (1:250,000 scale map with marginal notes).
- Pagel, M., Poty, B., and Sheppard, S.M.F., 1988. Contribution to some Saskatchewan uranium deposits mainly from fluid inclusions and isotopic data, in Ferguson, S., and Goleby, A., eds., *Uranium in Pine Creek geosynclines: Vienna, International Atomic Energy Agency*, p.639-654.
- Ramaekers, P., 1990. Geology of the Athabasca Group (Helikian) in Northern Saskatchewan; Saskatchewan Energy and Mines, Report 195, 49 p.
- Rhys, D.A., Horn, L., Sierd Eriks, R., 2009. Technical Report on the Shea Creek Property, Northern Saskatchewan. Prepared for UEX Corporation. [www.sedar.com](http://www.sedar.com), 157 p.
- Wilson, J.A, 1985. Geology of the Athabasca Group in Alberta. Bulletin No. 49, Alberta research Council, Alberta geological survey, 85 p.

## Certificate of Qualified Person

HARRISON COOKENBOO, Ph.D, P.Geo, P.Geol

Effective date: 27th day of June, 2022

As author of this report titled “Technical Report on the Element 92 Uranium Project, Southern Margin of the Athabasca Basin, Saskatchewan” prepared for and on behalf of Oberon Uranium Corp, I do hereby certify that:

I am a consulting geologist providing my services through:

B.C. 664163 Ltd.  
278 West 5th Street  
North Vancouver, B.C. Canada V7M 1K  
TEL: 1-604-762-5587 Email: hcookenboo@gmail.com

I graduated with a Bachelor of Science Degree (cum laude) in geology from Duke University (Durham, North Carolina) in 1981, a Masters of Science in geology from the University of British Columbia in 1989, and a Ph.D. in geology from the University of British Columbia in 1994.

I am a member of the British Columbia Association of Professional Engineers and Geologists (APEGBC P.Geo #23483), a member of the Association of Professional Engineers and Geoscientists of Saskatchewan (APEGS P.Geo. # 27847), a Licensee of the Northwest Territories and Nunavut Association of Professional Engineers and Geoscientists (NAPEG #L1028), and a Fellow of the Geological Association of Canada.

I have worked as a geologist for more than 30 years since graduation from Duke University in 1981. From 1981 to 1986, I worked for Cities Service Oil and Gas Corporation (later Occidental Petroleum) as an exploration geologist generating and evaluating hydrocarbon prospects in the Gulf of Mexico. Between 1987 and 1993, I completed my M.Sc. and Ph.D. degrees and worked as a research and teaching assistant at the University of British Columbia. From 1993 to the present, I have worked in mineral exploration, including diamonds, gold, silver, nickel, copper, lithium, potash, graphite, tungsten and the platinum group metals, first for Canamera Geological (later Meridian Geoscience), and since 2002 as an independent consulting geologist. I was appointed a Senior Associate Geologist by Watts, Griffis and McQuat Consulting Geologists and Engineers, Toronto Canada in 2004.

I have read the Canadian National Instrument 43-101 (“NI 43-101”) and the technical report and this report has been prepared in compliance with this Instrument; and further declare to the best of my knowledge, information and belief that as of the effective date, the technical report contains all scientific and technical information that is required to be disclosed to make the report not misleading.

I certify that by reason of my education, affiliation with appropriate professional associations (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a “Qualified Person” for the evaluation of early stage exploration properties for the purposes of NI 43-101 and this report. I have examined, evaluated and reported on diamond, gold, PGE, silver, potash, uranium and many more commodities in many parts of the world including the Northwest Territories,

Saskatchewan, Ontario, Quebec, Guyana, Costa Rica, Russia, Argentina and Brazil.

I prepared and am responsible all items of this report entitled "Technical Report on the Element 92 Uranium Project, Southern Margin of the Athabasca Basin, Saskatchewan" "

I am independent of the issuer Oberon Uranium Corp. I helped implement an early stage exploration program for prior (expired) claims covering part of the Property area between 2015 and 2018. I completed a personal inspection of the Property on June 21, 2022, by helicopter from Fort McMurray, Alberta.

"Harrison Cookenboo"

*June 27, 2022*

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Harrison O. Cookenboo Ph.D., P.Geo.  
"signed and sealed"

Dated at Vancouver, B.C.