

**FORM 51-102F3**

**MATERIAL CHANGE REPORT**

**UNDER NATIONAL INSTRUMENT 51-102**

**Item 1 Name and Address of Company**

Uranium Energy Corp. (the “Company” or “UEC”)  
500 North Shoreline, Ste. 800, Corpus Christi, Texas, U.S.A., 78401.

(“UEC” or the “Company”).

**Item 2 Date of Material Change**

January 12, 2023.

**Item 3 News Release**

A news release was issued by the Company through newswire services on January 12, 2023.

**Item 4 Summary of Material Change**

The Company announced that it had filed a Technical Report Summary on EDGAR disclosing mineral resources for the Company’s Shea Creek Project.

**Item 5 Full Description of Material Change**

**5.1 Full Description of Material Change**

On January 12, 2023, Uranium Energy Corp. (the “Company” or “UEC”) issued a news release to announce that it had filed a Technical Report Summary (“TRS”) on EDGAR disclosing updated mineral resources for the Company’s Shea Creek Project (the “Project” or “Shea Creek”). UEC owns 49.0975% of the Project and Orano Canada Resources (“Orano”) owns the remainder and is the Project operator.

- This TRS filing for Shea Creek is the first Saskatchewan resource reported by the Company since its acquisition UEX Corporation (“UEX”) in August of 2022.
- Combined Shea Creek resources of 95.63 million lb. U<sub>3</sub>O<sub>8</sub> on a consolidated basis are comprised of 67.57 million lb. at 1.491% U<sub>3</sub>O<sub>8</sub> in the indicated and 28.06 million lb. at 1.015% U<sub>3</sub>O<sub>8</sub> in the inferred categories, respectively.
- UEC attributable share of combined resources are 46.95 million lb. U<sub>3</sub>O<sub>8</sub>, comprised of 33.18 million lb indicated and 13.78 million lb. inferred (Table 1).

## **Background:**

- As a U.S. domestic and domiciled company, UEC is now reporting all mineral resources in accordance with Item 1302 of Regulation S-K (“S-K 1300”);
- S-K 1300 was adopted by the Securities and Exchange Commission (the “SEC”) to modernize mineral property disclosure requirements for mining registrants and to align U.S. disclosure requirements more closely for mineral properties with current industry and global regulatory standards; and
- The mineral resource estimate set forth in this TRS for the Shea Creek Project have not previously been reported under the S-K 1300 format.

The TRS was prepared under S-K 1300 and was filed on January 11, 2023 with the SEC through EDGAR on Form 8-K and is also available on SEDAR as a “Material Document” filed on January 11, 2023. The TRS was prepared on behalf of the Company by Mr. James Gray, P.Geo., of Advantage Geoservices Limited, Mr. David Rhys, P.Geo., of Panterra Geoservices Inc., and Mr. Chris Hamel, P.Geo., UEC’s Vice President Exploration, Canada.

## **About Shea Creek**

The Shea Creek Project is located in the Western Athabasca Basin (Figures 1 & 2), approximately 15 km south of Orano’s past-producing Cluff Lake mine and 50 km north of NexGen’s Arrow and Fission Uranium’s Triple R deposits. The Shea Creek deposits were the first new discoveries in the rapidly developing Western Athabasca uranium district. Shea Creek is a joint venture between UEX (49.0975%) and Orano (50.9025%). Uranium mineralization at Shea Creek is located at just above, and extends well below, the unconformity between Athabasca Group Sandstone and the underlying older basement rocks, which occurs at depths between 700 and 800 m.

Four unconformity-related deposits have been discovered to date on the Shea Creek Project: Kianna, Anne, Colette and 58B; and all four deposits remain open for expansion. These deposits occur along a three km stretch of the greater than 30 km long Saskatoon Lake Conductor Trend. Uranium occurs as unconformity-style uranium mineralization with basement ore shoots that can extend more than 200 m below the unconformity surface and up to 100 m above the unconformity.

UEC believes there is a very high potential to expand uranium resources in the basement rocks within the existing footprint of Shea Creek. The discovery potential along the remaining 26 km of the Saskatoon Lake Conductor Trend is also considered to be very good given the sparse drilling along the trend. One of the best results along the trend is located only two km south of the Anne deposit, where drillhole SHE-002 intersected 0.34%  $U_3O_8$  / 0.4 m. Limited follow-up drilling in the SHE-002 area in 2015 encountered a wide zone of indicative hydrothermal clay alteration and anomalous uranium that has been observed proximal to the Shea Creek deposit.

## Resource Disclosure

The Shea Creek mineral resource estimate for the four deposits were determined using a cut-off grade of 0.30% U<sub>3</sub>O<sub>8</sub>. A total of 2,056,000 tonnes containing 67.57 million pounds of U<sub>3</sub>O<sub>8</sub> at an average grade of 1.491% U<sub>3</sub>O<sub>8</sub> have been estimated in the indicated mineral resource category. A total of 1,254,000 tonnes containing 28.06 million pounds of U<sub>3</sub>O<sub>8</sub> at an average grade of 1.015% U<sub>3</sub>O<sub>8</sub> have been estimated in the inferred mineral resource category.

The current mineral resource estimate includes the results from 477 diamond drill holes totalling 402,800 m which were drilled from 1992 to 2012. On average, indicated resource blocks were located within eight m of a drill hole and inferred blocks within 16 m. Mineralized wireframes of the Colette, 58B, Kianna and Anne zones bound perched, unconformity, and basement mineralization was prepared at a 0.05% U<sub>3</sub>O<sub>8</sub> mineralized threshold to constrain the mineral resource estimate at each deposit area. The estimate was completed by ordinary kriging using Gemcom software with block sizes of five by five by five m. The impact of anomalously high-grade samples was controlled through a process of grade capping and as well as interpolation distance restrictions for some zones.

The mineral resource estimate primarily utilized uranium geochemical analyses from the Saskatchewan Research Council Geoanalytical Laboratories, in Saskatoon, Saskatchewan, obtained through Inductively Coupled Plasma Mass Spectroscopy ("ICP-MS") for all samples with grades lower than 1,000 ppm U<sub>3</sub>O<sub>8</sub> and using Inductively Couple Plasma Optical Emission Spectroscopy for samples determined by ICP-MS to contain uranium concentrations higher than 1,000 ppm U<sub>3</sub>O<sub>8</sub>. Duplicate and independent check analyses were performed on approximately 5% of the mineralized assay database.

In cases where geochemical analyses were not available due to incomplete sampling or core recovery issues, downhole gamma probe data were used to calculate equivalent uranium grades obtained using a DHT27-STD gamma probe which collects continuous readings along the length of the drill hole. Probe results were calibrated using an algorithm calculated from comparison of probe results against geochemical analyses in previous holes in the Shea Creek area.

**Table 1 – Shea Creek Mineral Resource Estimate at 0.30% U<sub>3</sub>O<sub>8</sub> cut-off grade**

| Deposit Area | Indicated |                                   |                                    |                                              | Inferred  |                                   |                                    |                                              |
|--------------|-----------|-----------------------------------|------------------------------------|----------------------------------------------|-----------|-----------------------------------|------------------------------------|----------------------------------------------|
|              | Tonnes    | U <sub>3</sub> O <sub>8</sub> (%) | U <sub>3</sub> O <sub>8</sub> (Lb) | UEC Share U <sub>3</sub> O <sub>8</sub> (Lb) | Tonnes    | U <sub>3</sub> O <sub>8</sub> (%) | U <sub>3</sub> O <sub>8</sub> (Lb) | UEC Share U <sub>3</sub> O <sub>8</sub> (Lb) |
| Collette     | 327,000   | 0.787                             | 5,674 K                            | 2,786 K                                      | 492,000   | 0.717                             | 7,768 K                            | 3,814 K                                      |
| 58B          | 142,000   | 0.773                             | 2,419 K                            | 1,188 K                                      | 81,000    | 0.510                             | 906 K                              | 445 K                                        |
| Kianna       | 1,027,000 | 1.535                             | 34,743 K                           | 17,058 K                                     | 547,000   | 1.390                             | 16,772 K                           | 8,235 K                                      |
| Anne         | 560,000   | 2.002                             | 24,735 K                           | 12,144 K                                     | 134,000   | 0.883                             | 2,6120 K                           | 1,282 K                                      |
| Total        | 2,056,000 | 1.491                             | 67,570 K                           | 33,175 K                                     | 1,254,000 | 1.015                             | 28,057 K                           | 13,775 K                                     |

Notes:

- 1) Sum of indicated and inferred tonnes and pounds may not add up to the reported total due to rounding.
- 2) Indicated and inferred mineral resources as defined in 17 CFR § 229.1300 of S-K 1300.
- 3) Resources are reported as of October 31, 2022.

- 4) The point of reference for mineral resources is in-situ at the Project.
- 5) Mineral resources that are not mineral reserves do not have demonstrated economic viability.
- 6) UEC attributable resources are calculated based on UEX's 49.0975% equity in the Project.

Summary capital and operating cost estimates are not included with the TRS since the Company is reporting the results of an initial assessment.

The TRS has been prepared and the technical information in this news release respecting the TRS has been reviewed by each of Messrs. James Gray, P.Geo., David Rhys, P.Geo., and Chris J. Hamel P.Geo., Vice President Exploration, Canada, for the Company, all Qualified Persons under Item 1302 of S-K 1300.

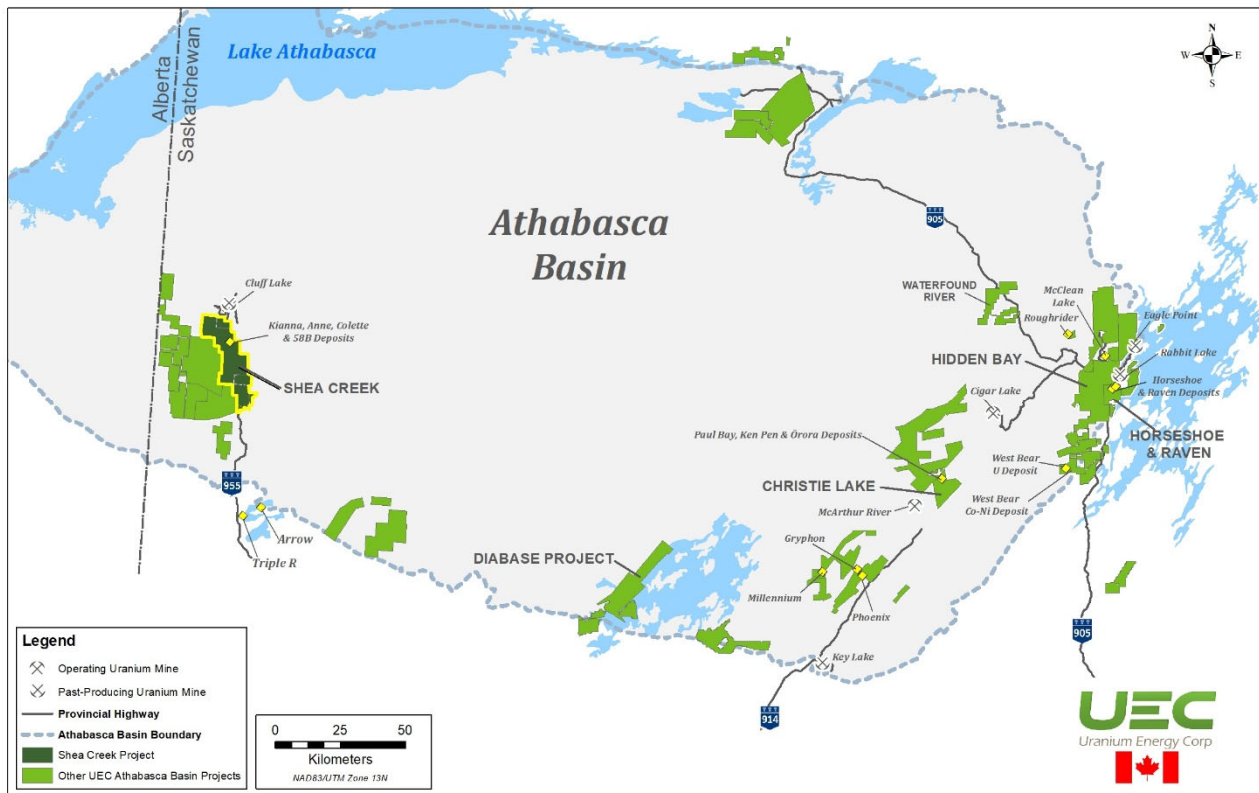


Figure 1- UEC Athabasca Projects

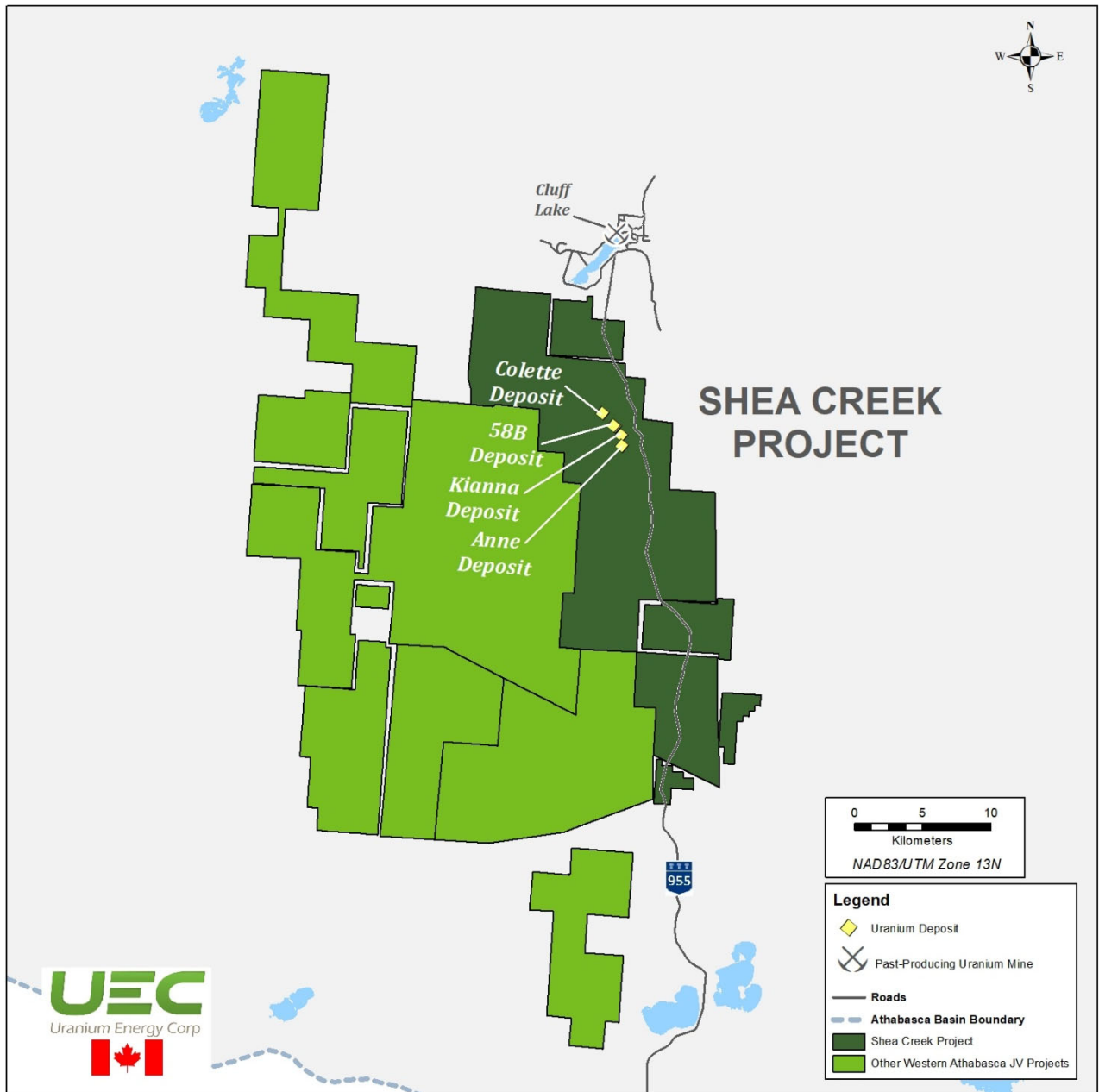


Figure 2 - Shea Creek Project

## 5.2 Disclosure for Restructuring Transactions

Not Applicable.

## Item 6 Reliance on subsection 7.1(2) of National Instrument 51-102

Not applicable.

**Item 7            Omitted Information**

Not applicable.

**Item 8            Executive Officer**

Amir Adnani  
President and Chief Executive Officer  
Telephone: (361) 888-8235.

**Item 9            Date of Report**

January 12, 2023.

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