

## **SIGNIFICANT URANIUM TARGET DEFINED AT SURPRISE CREEK FAULT WITH EXTENSIVE SURFACE MINERALISATION**

Valor's exploration targeting vein-hosted uranium discoveries continues to gather momentum

### **HIGHLIGHTS**

- ▶ Area of recently discovered surface uranium mineralisation at **Surprise Creek** extended to nearly **400m** strike length at the Surprise Creek Fault target based on results from a follow-up field program completed in October.
- ▶ Field program uncovers five **showings with maximum scintillometer readings of 65,535 cps<sup>1</sup>** and several more **with over 10,000 cps<sup>1</sup>**.
- ▶ The field program comprised mainly geological mapping and geochemical sampling in the Surprise Creek Fault area as a follow-up to reconnaissance work completed in July which returned several rock chips with assays **>1% U<sub>3</sub>O<sub>8</sub>** and up to **6.13% U<sub>3</sub>O<sub>8</sub>** and **1.03% Cu**.
- ▶ Geological mapping confirms proximity to mineralisation of an unconformity and a spatial association with the north-south trending Surprise Creek Fault, highlighting strong geological similarities with significant uranium deposits in the Beaverlodge Uranium District such as Fay-Ace and Gunnar.
- ▶ 50 rock chip samples collected from across the Project, including 31 samples from the Surprise Creek Fault area, with assay results expected later in the December Quarter.
- ▶ The Company is targeting structurally-controlled vein type uranium deposits at Surprise Creek, a sub-type of the basement-hosted unconformity-related uranium deposits.

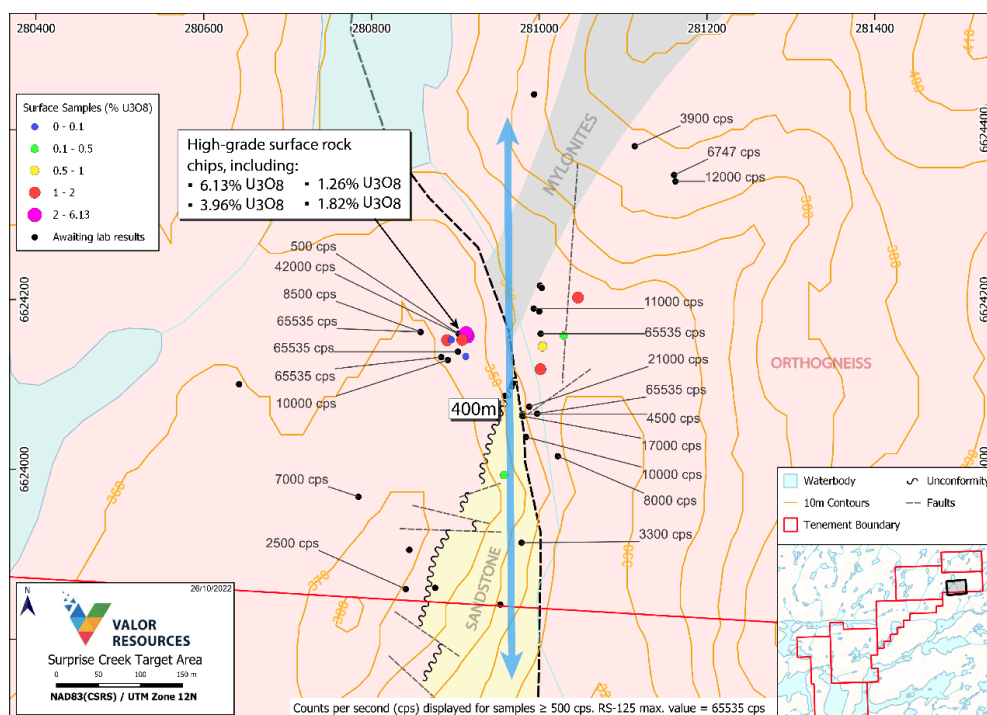


Figure 1: Surprise Creek Fault - Simplified geology and scintillometer readings<sup>1</sup>

<sup>1</sup> Scintillometer readings are measured in counts per second (cps) using an RS-125 scintillometer and are not directly or uniformly related to uranium grades of the rock sample measured and are only a preliminary indication of the presence of radioactive materials.

Valor Resources Limited (Valor) or (the Company) (ASX: VAL) is pleased to advise that follow-up field work has further enhanced the potential of its 100%-owned **Surprise Creek Uranium Project**, located near the Beaverlodge Uranium District in northern Saskatchewan, Canada.

The field program mainly comprised geological mapping and geochemical sampling in the Surprise Creek Fault area and was designed to follow-up reconnaissance work undertaken in July which returned several rock chip assay results of **>1% U<sub>3</sub>O<sub>8</sub> and up to 6.13% U<sub>3</sub>O<sub>8</sub> and 1.03% Cu** (see ASX announcement dated 13 October 2022 titled "*Exceptional Uranium and Copper rock chip results*").

The latest results have successfully extended the area of surface uranium mineralisation at Surprise Creek Fault to nearly 400m strike length, uncovering five showings with maximum scintillometer readings of 65,535 cps and several more with over 10,000 cps<sup>1</sup>.

Final assay results for the latest round of sampling are expected within 4-6 weeks.

A total of 50 rock chip samples were collected in the program, of which **31 samples** were collected from the Surprise Creek Fault prospect.

Detailed geological mapping was also undertaken over the area around the Surprise Creek Fault, with results highlighting compelling geological similarities to some of the more significant uranium deposits within the Beaverlodge district such as Fay-Ace and Gunnar.

Executive Chairman George Bauk commented: "*The follow-up program targeting the Surprise Creek Fault prospect has successfully extended the area of uranium mineralisation and given us strong impetus to drill test this target in 2023.*"

*"The known deposits in this part of the Beaverlodge district produced about 57 million pounds of uranium historically, highlighting the potential of this area to yield very significant uranium deposits.*

*"Prior to drilling, we plan to complete detailed airborne radiometrics and magnetics across the entire Surprise Creek project area to identify other potential uranium targets as well as enhance our structural understanding to assist with drill planning.*

*"We also plan to follow-up known copper occurrences in the southern and western portions of the Project, which appear to represent widespread mineralisation in an area where we have very limited geological data."*

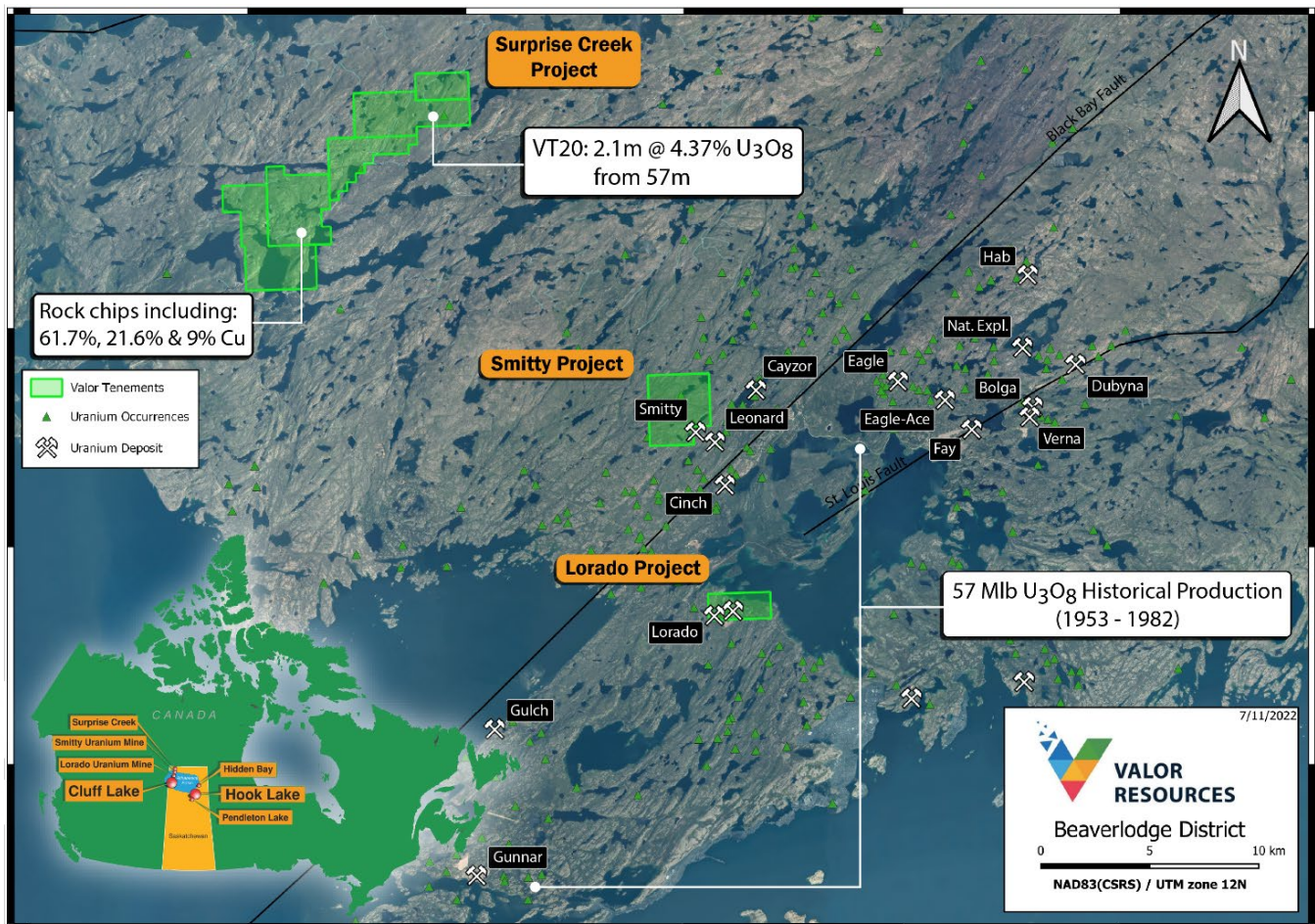


Figure 2: Surprise Creek Project location (Historical production figure sourced from Chi et al, 2020<sup>3</sup>)

## SURPRISE CREEK FAULT TARGET

Historical drilling at the Surprise Creek Fault prospect from 1968 returned significant intercepts including **2.1m @ 4.37% U<sub>3</sub>O<sub>8</sub>** from 57m (VT20) including **0.9m at 7.5% U<sub>3</sub>O<sub>8</sub>**. Details of the historical exploration at the Surprise Creek Project were provided in the Company's ASX announcement dated 6<sup>th</sup> July 2022 and titled "Surprise Creek data review highlights high-grade targets".

First-pass on-ground reconnaissance of this area was completed by Valor in July this year, with assay results reported in the ASX announcement dated 13<sup>th</sup> October 2022. Of the 11 rock chip samples taken at Surprise Creek Fault, **six returned assays of >1% U<sub>3</sub>O<sub>8</sub>**, with a peak assay of **6.13% U<sub>3</sub>O<sub>8</sub>**. All the >1% U<sub>3</sub>O<sub>8</sub> samples returned anomalous copper results, with a highest assay of **2.57% Cu**.

During the most recent field program, a hand-held RS-125 scintillometer was used to identify uranium mineralisation with five sample locations recording maximum readings (>65,535cps) and another ten sample locations recording >5,000cps, with multiple other occurrences of anomalous scintillometer readings present in the area.

The scintillometer reading locations are selective in nature and therefore have a high potential for bias and should not be considered as being representative of the overall mineralised structure or zone. A total of **31** samples were collected from the prospect area which have been submitted for assay.

The Surprise Creek Fault is a north-northwest trending fault zone within orthogneisses and mylonite with widespread interpreted albitisation.



Uranium mineralisation was predominantly found within northeast-southwest and east-west trending carbonate-hematite veins and hematitic breccias (see Figure 4 below), with chlorite alteration and is variably associated with copper (visible malachite) +/- lead mineralisation.

The higher-grade uranium mineralisation occurs around the intersection of the Surprise Creek Fault and a north-northeast trending mylonitic zone.

The geological mapping has identified outcropping younger Martin Group red beds (sandstones) which occur unconformably and/or in faulted contact with the older basement orthogneisses (see Figure 1).

The geological setting of the Surprise Creek Fault prospect shares many similarities with the geology of two of the most significant Beaverlodge Uranium District deposits, Fay-Ace and Gunnar, which are located around 25km south-east and 30km south of Surprise Creek respectively.

Figure 3 below shows geological cross-sections through these two deposits. Historical production for the Fay-Ace and Gunnar deposits are reported as 42Mlbs and 15Mlbs  $U_3O_8$  respectively (Saskatchewan Mineral Deposit Index – SMDI 1285; Ashton, 2010<sup>2</sup>).

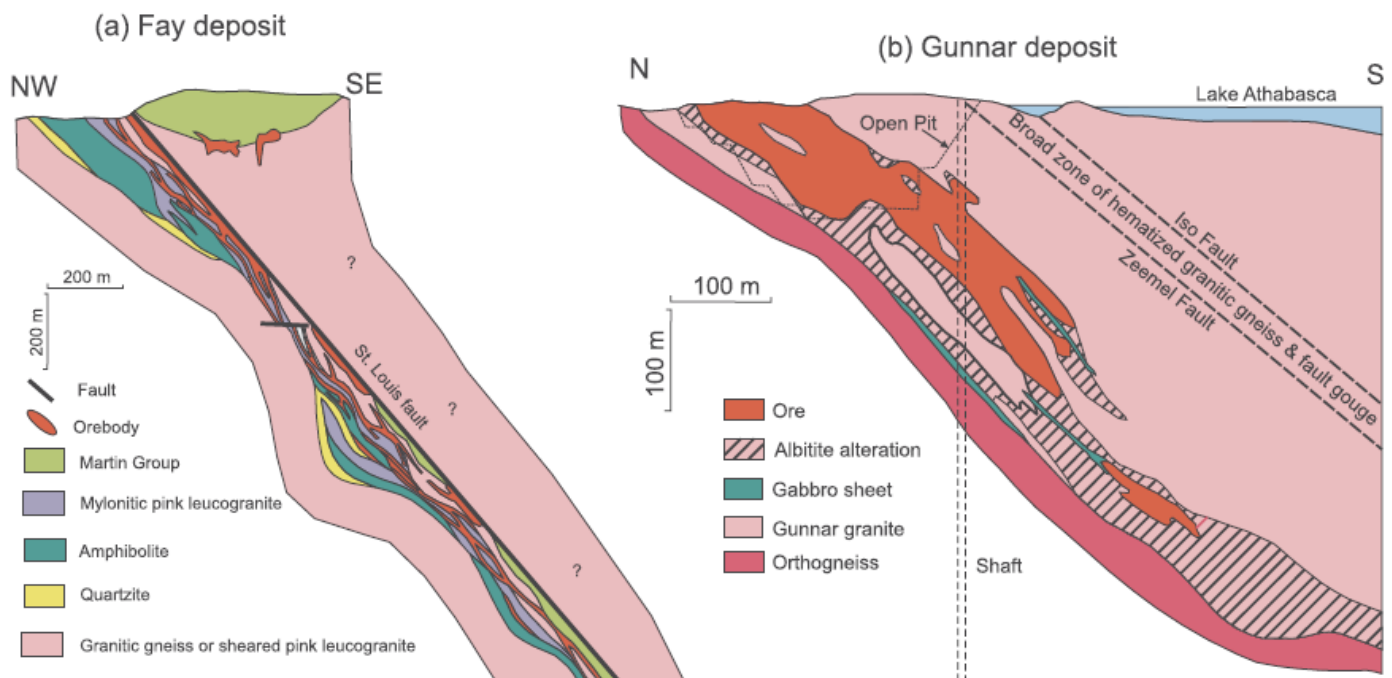


Figure 3: Cross-sections of Fay and Gunnar deposits, Beaverlodge Uranium District (source – Chi et al, 2020<sup>3</sup>)

<sup>2</sup> -Ashton, K.E., 2010. The Gunnar Mine: An Episyenite-hosted, Granite-related Uranium Deposit in the Beaverlodge Uranium District, in Summary of Investigation 2010, Saskatchewan Geological Survey, Saskatchewan ENERGY AND Mines, Miscellaneous Report 2010-4 p.21

<sup>3</sup> -Chi, G., Ashton, K.E., Deng, T., Xu, D., Li, Z., Song, H., Liang, R., Kennicott, J., 2020. Comparison of granite-related uranium deposits in the Beaverlodge district (Canada) and South China - A common control of mineralisation by coupled shallow and deep-seated geologic processes in an extensional setting, Ore Geology Reviews 117





*Figure 4: Uranium mineralisation in hematitic breccia from Surprise Creek Fault target*

## **COPPER TARGETS**

Follow-up of the copper occurrences identified in the July field program was also carried out as part of the October field program. A further **17** samples were collected in this area targeting the copper occurrences.

Figure 5 below shows where copper occurrences have been confirmed in the field along with the high-grade samples from the July field program. The host rocks for most of these copper occurrences are mylonitic granitic rocks and/or metasediments with disseminated sulphides and copper oxides.

Further copper occurrences have been located close to the unconformity between the Thluico Lake Group sediments and the older Tazin Group mylonites suggesting a possible genetic link (see Figure 5).



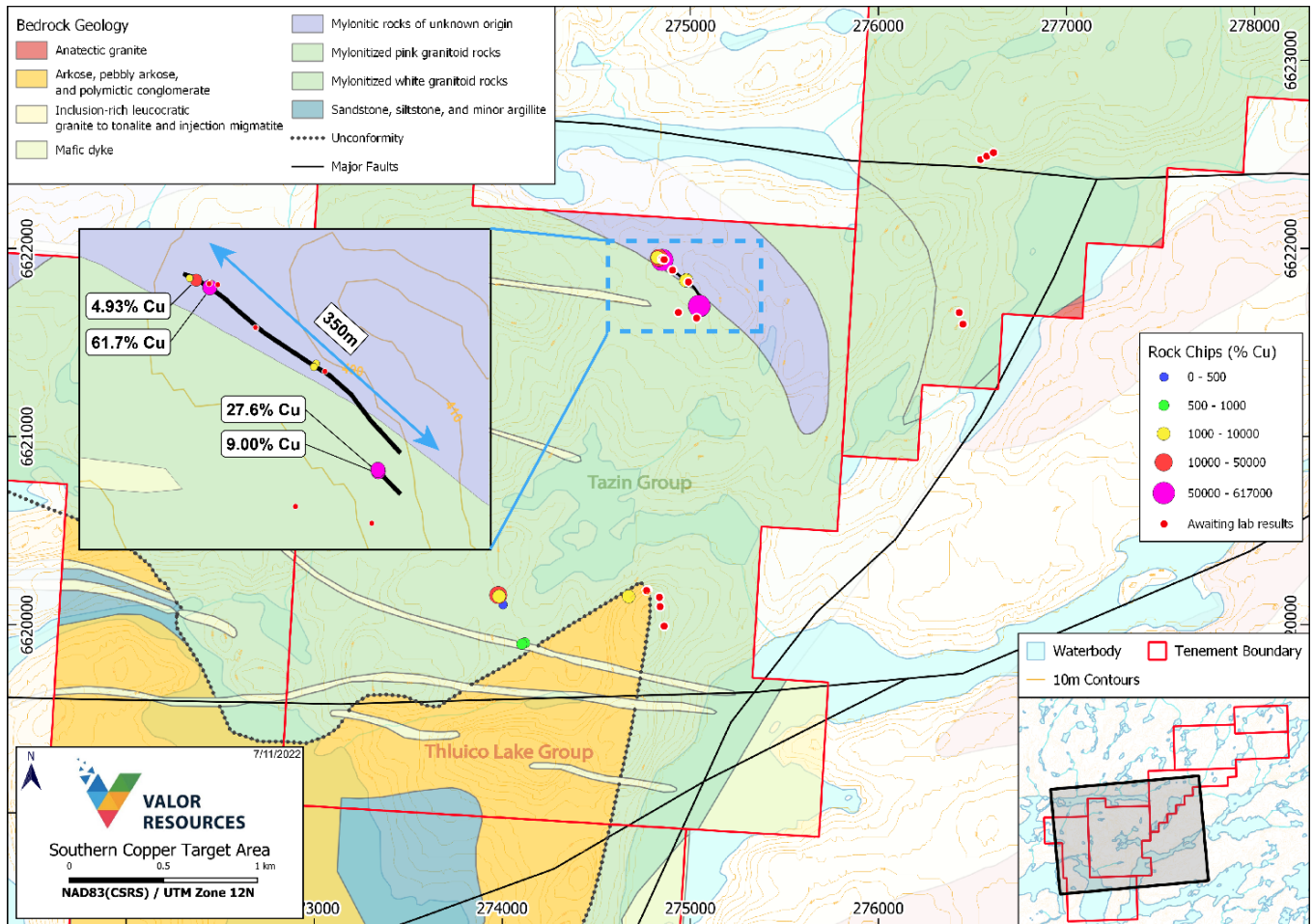


Figure 5: Surprise Creek: location of copper occurrences and sampling

## NEXT STEPS CANADA

Project Task	Target Date	Description
Cluff Lake Gravity and field work results	November	Interpretation and targeting
Hidden Bay Radon survey results	November	Interpretation of survey results
Pendleton and MacPhersons Lake Historical data review	December	Review of all historical data including targeting
Smitty and Lorado Historical data review	December	Review of all historical data including targeting

**This announcement has been authorised for release by the Board of Directors.**

**For further information, please contact:**

**George Bauk**

Executive Chairman

+61 408 931 746

george@totode.com.au

**Joe Graziano**

Company Secretary

+61 411 649 551

**Media enquiries | Read Corporate**

Nicholas Read

+61 419 929 046

nicholas@readcorporate.com.au

**ASX : VAL**

### **COMPETENT PERSON STATEMENT**

The information in this documents that relates to Exploration Results is based on information compiled by Mr Robin Wilson who is a Member of the Australasian Institute of Mining and Metallurgy. Mr Wilson is a consultant and Technical Director for Valor Resources and has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves' (the JORC Code). Mr Wilson consents to the inclusion of this information in the form and context in which it appears.

**Ends -----**





## JORC CODE, 2012 EDITION – TABLE 1 REPORT

### SECTION 1 SAMPLING TECHNIQUES AND DATA

Criteria	JORC Code explanation	Commentary
<b>Sampling techniques</b>	<i>Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</i>	50 rock chip samples were taken by the Company during the Sept/Oct 2022 field program referenced in this report and were selective by nature. Scintillometer readings were taken with an RS-125 scintillometer on outcrops and are referenced in Figure 1 and the main body of text. In the instance of the U showings, scintillometers were used to identify outcrops with anomalous radioactivity that were subsequently sampled.
	<i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i>	Samples taken by the Company were selective by nature. Scintillometer readings reported were taken on outcrop at each sample site to ensure consistency in cps values. The RS-125 assay feature was used to acquire preliminary U values but are not included in this report. The RS-125 scintillometers were calibrated before the field program began and this is considered adequate for ensuring accuracy.
	<i>Aspects of the determination of mineralisation that are Material to the Public Report.</i>	In the instance of the Cu showings, visible Cu mineralisation and/or knowledge of prospectivity of certain rocks were used for determining mineralisation for selective sampling. In the instance of the U showings, scintillometers were used to identify samples for selective sampling.
<b>Drilling techniques</b>	<i>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).</i>	Not applicable – no drilling reported herein.
<b>Drill sample recovery</b>	<i>Method of recording and assessing core and chip sample recoveries and results assessed.</i>	Not applicable – no drilling reported herein
	<i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i>	Not applicable – no drilling reported herein
	<i>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</i>	Not applicable – no drilling reported herein
<b>Logging</b>	<i>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</i>	Not applicable – no drilling reported herein
	<i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i>	Not applicable – no drilling reported herein
	<i>The total length and percentage of the relevant intersections logged.</i>	Not applicable – no drilling reported herein.
<b>Sub-sampling techniques and sample preparation</b>	<i>If core, whether cut or sawn and whether quarter, half or all core taken.</i>	Not applicable – no drilling reported herein
	<i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i>	Not applicable – no drilling reported herein
	<i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i>	Not applicable – no assay results reported.
	<i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i>	Not applicable – no sub-sampling
	<i>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</i>	Not applicable – sampling results not reported herein.
<b>Quality of assay data and laboratory tests</b>	<i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i>	Not applicable – sampling results not reported herein.
	<i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i>	Not applicable – no assays reported herein
	<i>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</i>	For data acquired in the 2022 Field Program: <ul style="list-style-type: none"> <li>- An RS-125 Scintillometer was used for all samples.</li> <li>- A minimum and maximum scintillometer reading was recorded for each sample.</li> </ul>

Criteria	JORC Code explanation	Commentary
		<ul style="list-style-type: none"> <li>- Calibration was completed on all machines prior to field work</li> <li>- Readings are given in cps (counts per second)</li> </ul>
	<i>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</i>	The scintillometer readings reported are selective in nature. The scintillometer was allowed to take a reading for 30 seconds and a maximum and minimum cps value was recorded at each sample location. When a scintillometer assay was taken, a time period of 120 seconds was used, however this data is not included in this report. Samples have been sent to SRC in Saskatoon. Lab standards and duplicates are utilised by SRC and inserted for every 20 samples analysed.
<b>Verification of sampling and assaying</b>	<i>The verification of significant intersections by either independent or alternative company personnel.</i>	Not applicable – no assays reported herein.
	<i>The use of twinned holes.</i>	Not applicable – no drilling undertaken.
	<i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i>	Data is recorded in the field using a tablet-based GIS system, with some locations also being marked with a GPS. Data is uploaded to cloud storage daily and added to the Valor geological database which is managed by Terra Resources in Perth.
	<i>Discuss any adjustment to assay data.</i>	Not applicable – no assays reported herein.
<b>Location of data points</b>	<i>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</i>	For the 2022 field program, no historic drill-holes were located. Co-ordinates were taken using a Garmin 66ST with an accuracy of +/- 5m. Historic trench locations were confirmed and located where possible.
	<i>Specification of the grid system used.</i>	The geodetic system used for all spatial data was NAD83 in UTM Zone 12N.
	<i>Quality and adequacy of topographic control.</i>	Topographic control is considered fit for purpose.
<b>Data spacing and distribution</b>	<i>Data spacing for reporting of Exploration Results.</i>	The project is at an early exploration stage and sample spacing is not considered an important factor at this stage.
	<i>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</i>	Not applicable – no Mineral Resource estimation.
	<i>Whether sample compositing has been applied.</i>	No sample compositing has been applied.
<b>Orientation of data in relation to geological structure</b>	<i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i>	Scintillometer readings and samples were taken selectively therefore they may be some bias towards mineralised structures.
	<i>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</i>	Scintillometer readings and surface samples taken during the 2022 field program were selective and thus a spatial relationship to geological structures is intrinsic to this method.
<b>Sample security</b>	<i>The measures taken to ensure sample security.</i>	Samples were stored safely and the Company is not aware of any risk to sample integrity. General access to the samples prior to transport is only available to site personnel.
<b>Audits or reviews</b>	<i>The results of any audits or reviews of sampling techniques and data.</i>	Not applicable for early-stage exploration.

## SECTION 2 REPORTING OF EXPLORATION RESULTS (Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
<b>Mineral tenement and land tenure status</b>	<i>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</i>	The Surprise Creek Project comprises 5 contiguous mineral dispositions covering 3,770 hectares.
	<i>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area</i>	All mineral claims are currently granted and in good standing with no known impediments.
<b>Exploration done by other parties</b>	<i>Acknowledgment and appraisal of exploration by other parties.</i>	<p>Exploration was previously completed on the Surprise Creek Project by several companies since the 1950s including CONS VAN TOR, CULTUS, ENEX, Phelps Dodge, PINEX, Independent Mining Company, SMDC and independent prospectors. this includes but is not limited to:</p> <ul style="list-style-type: none"> <li>- Airborne Magnetic surveys, Electromagnetic surveys, IP surveys, Scintillometer prospecting.</li> <li>- Geochemical sampling, prospecting and mapping</li> <li>- Diamond drilling</li> </ul>
<b>Geology</b>	<i>Deposit type, geological setting and style of mineralisation.</i>	The Surprise Creek Project is situated to the North of the Athabasca basin in the Zemplak Domain of the Rae Province. The area is underlain predominantly by Precambrian rocks of the Archean Tazin Group, overlain in places by the Martin Formation. Historically, the Athabasca Basin region produces over 20% of the world's primary uranium supply. The exploration target is basement-hosted and Athabasca sandstone-hosted unconformity-style uranium deposits.
<b>Drill hole Information</b>	<i>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:</i> <ul style="list-style-type: none"> <li>• easting and northing of the drill hole collar</li> <li>• elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>• dip and azimuth of the hole</li> <li>• down hole length and interception depth</li> <li>• hole length.</li> </ul>	Not applicable – no drilling reported.
	<i>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</i>	Not applicable – no drilling reported.
<b>Data aggregation methods</b>	<i>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</i>	Not applicable-these techniques don't apply to the type of sampling undertaken.
	<i>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</i>	Not applicable – sample aggregation was not used.
	<i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i>	Not applicable – No metal equivalents reported.
<b>Relationship between mineralisation widths and intercept lengths</b>	<i>These relationships are particularly important in the reporting of Exploration Results.</i>	Not applicable – point data only reported.
	<i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i>	Not applicable – no drilling reported.
	<i>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</i>	Not applicable – no drilling reported.



Criteria	JORC Code explanation	Commentary
<b>Diagrams</b>	<i>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported. These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</i>	Refer to Figures 1 and 5 above in body of text.
<b>Balanced reporting</b>	<i>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</i>	Scintillometer readings only reported herein which were taken to obtain an indication of uranium mineralisation,
<b>Other substantive exploration data</b>	<i>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</i>	No previous on-ground exploration has been completed by Valor on the Surprise Creek Project. Historical assay results are the only substantive data to report at this stage of exploration.
<b>Further work</b>	<i>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</i>	Further work on the project will include the following: <ul style="list-style-type: none"> <li>• Assessment of the efficacy of airborne geophysical methods in delineating areas of mineral potential on the property.</li> <li>• Further on-ground sampling and geological mapping</li> <li>• Drill program planning</li> </ul>
	<i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i>	Refer to Figures 1 and 5 above in body of text.

### SECTION 3 ESTIMATION AND REPORTING OF MINERAL RESOURCES

Not applicable.

### SECTION 4 ESTIMATION AND REPORTING OF ORE RESERVES

Not applicable.