

ASX ANNOUNCEMENT 21st FEBRUARY 2024

SIGNIFICANT URANIUM MINERALISATION AND PRIORITY TARGET AREAS IDENTIFIED AT ELLIOT LAKE, CANADA

- Uranium mineralisation and priority target areas identified from data compilation and review at the Elliot Lake Uranium Project, Ontario, Canada.
- Sparse historical drilling within NickelX's tenure and immediate surrounds intersected prospective, mineralised conglomerates¹ that returned average equivalent uranium values (e U₃O₈)² of:
 - c. 9.0 m @ 0.010% (100 ppm) eU₃O₈ from the Inspiration occurrence;
 - c. 1.8 m @ 0.023% (230 ppm) eU₃O₈ from the Crazy Lake occurrence;
 - c. 0.8 m @ 0.090% (900 ppm) eU₃O₈ from the Mattaini occurrence; and
 - c. 0.8 m @ 0.020% (200 ppm) eU_3O_8 from the Rawhide occurrence.
- First pass geological review has also identified three priority target areas, two of which with known mineralisation, over a combined c. 35 km strike of prospective tenure.
- The highest priority target, the Crazy Lake-Gods Lake Trend, sits along strike from the large historic Quirke No 1 mine, c. 14 km to the E, which exploited uranium-bearing conglomerate beds ('reefs') measuring 13.0 km long and up to 5.5 km wide.
- A geophysical data review is in progress designed to better constrain these and generate additional targets.
- A field reconnaissance program, including mapping, sampling and drill hole siting, is planned for commencement of the northern hemisphere spring in April/May 2024.
- The Elliot Lake uranium district produced 362 Mlbs U₃O₈ @ 0.1060% (1,060 ppm) U₃O₈ from 13 underground mines active between 1955 and 1996³, within a c. 15 km × 15 km area.
- The Denison mine, the largest in the historic Elliot Lake uranium production centre, is c. 19.5 km long and up to c. 8.0 km wide with individual reefs between c. 2 and 4 m thick.

¹ The information pertaining to historic exploration results was compiled from the Ontario Geological Survey (OGS) Mineral Deposits Circular 25 authored by Robertson and Gould (1983) and the Ontario Mineral Inventory (OMI) and Ontario Drill Hole (ODHD) databases, which can be accesses via https://www.geologyontario.mndm.gov.on.ca/OMI Description.html and https://www.geologyontario.mndm.gov.on.ca/ODHD Description.html. More detail is provided below and in JORC Table 1.

² Drill cores obtained by previous explorers were not assayed in a laboratory. Reported eU3O8 grades relate to historical calculations of radioactivity as measured with spectrometers or Geiger-Mueller counters. In the absence of petrological information and/or laboratory assays, uranium cannot be confirmed as the single or main source of the radioactivity measured in the historical drill sample materials. All drillhole intervals are core lengths. True thickness is unknown. ³ Workman et al. (2013): Update report on the Appia Energy Corp uranium-rare earth property, Elliot Lake district, north-central Ontario, Canada. Watts, Griffis and McQuat Limited Consulting Geologists and Engineers, Toronto, 30 July 2013, 100 p.



NickelX Limited ("NickelX", "NKL" or "The Company") is pleased to report the identification of significant uranium mineralisation and priority target areas for future work at the recently staked, 100% owned Elliot Lake Uranium Project in Ontario, Canada.

The tenements, collectively referred to as The Elliot Lake Uranium Project, are located along strike from the Elliot Lake Uranium district which historically produced 362 Mlbs U_3O_8 from 13 underground mines within an area of c. 15 km by 15 km.

The Elliot Lake Uranium Project comprises 30 multi-cell mining claims covering 129 km² and is located within proximity to service centres and excellent infrastructure with both Cameco's Blind River uranium refinery and the Trans-Canada Highway only c. 35 km to the south.

The Company will be targeting conglomerate-hosted uranium along the underexplored interpreted extensions to the historic major uranium mining centre at Elliot Lake.

The targeted uranium mineralisation style is stratabound and consequently relatively continuous and predictable. The known deposits typically have excellent lateral and downdip grade and thickness continuity, providing potential for large-scale deposits.

NickelX Managing Director Matt Gauci said:

"The Company now owns 100% of the Elliot Lake Uranium Project, part of which is already granted. Our first pass geological review has identified priority target areas with results from a complementary geophysical review expected shortly. Importantly, as we are targeting stratabound conglomerate style uranium along underexplored interpreted extensions of a major uranium mining centre, the mineralization is often consistent in grade and thickness, making for rapid discovery potential."

Cautionary Statement

All exploration results reported here are historic in nature and most date back to the 1950s or 1960s. A Competent Person has not done sufficient work to verify the historical drilling and probe data in accordance with the JORC Code. Furthermore, it is uncertain whether any of the historical data presented here can be verified or ever be used to inform any future Mineral Resources or Ore Reserves estimations in accordance with the JORC Code.

The historic Geiger-Mueller counter and gamma spectrometer results included in this report should be regarded preliminary only. The use of point location gamma readings only provides an indication of the presence of gamma releasing materials such as uraninite (or other uranium-bearing minerals). Because the material that is the subject of this report is historic in nature and the corresponding drill cores presumably no longer exist, NickelX cannot verify these readings by way of laboratory analysis. However, new work is planned by the Company (see next steps) that will produce accurate modern results in due course.

Based on NickelX's understanding to date, most if not all the historic drill cores would have been discarded or lost, and many of the historic reports are incomplete with respect to JORC relevant information and/or are handwritten and poorly legible. NickelX intends to further verify the information presented herein in three ways: (1) Additional data compilation and review; (2) reprocessing of radiometric data, which may highlight some of the occurrences; and (3) field checking of the uranium occurrence and drill collar locations.





Figure 1. Location of the Elliot Lake Uranium Project in south-central Ontario, Canada. The Project is situated next to the historic Elliot Lake uranium production centre where 362 Mlbs U₃O₈ were mined in the 1950s to 1990s. Also shown is the location of Cameco Corp's Blind River uranium refinery, which is 35 km S of the Project.



Elliot Lake Uranium Project

<u>Tenure</u>

The Elliot Lake Uranium Project (Figures 1 and 2) consists of four sub-projects comprising a total of 30 multi-cell mining claims for 129 km² (see NKL announcement dated 14 February 2024 for a list of claims).

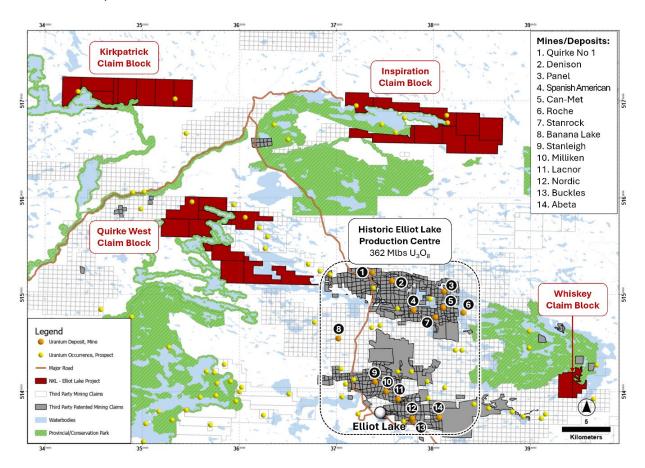


Figure 2. Map of the Elliot Lake Uranium Project and surrounds, also showing the historic Elliot Lake uranium production centre where 362 Mlbs U_3O_8 were mined in the 1950s to 1990s. The Elliot Lake Uranium Project is comprised of four subprojects or claim blocks, known as Kilpatrick, Inspiration, Quirke West and Whiskey.



Geology⁴

The geology of the Elliot Lake district can be divided into two three main parts: Archean basement rocks, Paleoproterozoic sedimentary and volcanic rocks of the Huronian Supergroup and post-Huronian intrusive rocks.

The Project geology is dominated by the Huronian Supergroup (Figure 3), a sequence of mainly sedimentary siliciclastic rocks of Paleoproterozoic age that unconformably overlie granites and greenstones of the Archean Superior Craton. The Huronian Supergroup was deposited along the Archean cratonic margin during a period of crustal extension that created a basin for sediment deposition and focal point for volcanic activity. The Huronian Supergroup is interpreted to represent a rift and passive margin sequence that was deposited between 2,500 and 2,219 Ma, and subsequently buried, compressed, and metamorphosed during the 1,900 to 1,700 Ma Penokean Orogeny. The Huronian Supergroup is divided into four groups. These are, from oldest to youngest, the Elliot Lake, Hough Lake, Quirke Lake and Cobalt groups, which together reach a maximum thickness of c. 12 km.

<u>Uranium mineralisation 5, 6</u>

Uranium mineralisation in the Elliot Lake district occurs mostly within the Elliot Lake Group (main host: Matinenda Formation), Hough Group (main host: Mississagi Formation) and Cobalt Group (main host: Lorrain Formation) of the Huronian Supergroup.

The uranium deposits of the Elliot Lake district are classified as paleo quartz-pebble conglomerate ('paleoplacer-type') uranium deposits. However, the presence of both detrital and hydrothermal uranium minerals, domains of hydrothermal alteration and a tectonic fabric suggests that the Elliot Lake deposits have been modified after diagenesis.

Most researchers currently believe that the Elliot Lake mineralisation formed during two stages: (i) concentration of heavy mineral placers such as uraninite grains in ancient riverbeds (similar to the processes that concentrate alluvial placer gold), and (ii) later modification of the primary sedimentary placers by way of hydrothermal dissolution, remobilisation and redeposition during post-diagenetic tectonothermal events.

The uranium mineralisation in the Elliot Lake district is stratabound and shows good consistency in grade and thickness over wide areas, both along strike and down dip. For example, the Denison mine, the largest in the historic Elliot Lake uranium production centre, is c. 19.5 km long and up to c. 8.0 km wide with individual uranium-bearing conglomerate beds ('reefs') between c. 2 and 4 m thick. The second largest mine, Quirke No 1, exploited a uranium mineralised reef measuring 13.0 km long and up to 5.5 km wide of similar thickness.

Uranium at Elliot Lake occurs predominantly as uraninite, coffinite and uranothorite, and is typically accompanied by significant rare earth element (predominantly yttrium) and thorium as well as sporadic gold mineralisation.

⁴ Bergen, L., Fayek, M. (2012). Petrography and geochronology of the Pele Mountain quartz-pebble conglomerate uranium deposit, Elliot Lake District, Canada. The American Mineralogist, v 97, p 1274-1283.

⁵ Robinson, A., Spooner, E.T.C. (1984). Postdepositional modification of uraninite-bearing quartz-pebble conglomerates from the Quirke ore zone, Elliot Lake, Ontario. Economic Geology, v 79, p 297-321.

⁶ Robertson, J.A. (1976). The Blind River uranium deposits: The ores and their setting. Miscellaneous Paper 65, Ontario Division of Mines, 45 p.



Previous exploration^{3, 7}

Exploration for uranium in the Elliot Lake district was carried out initially in the period 1948 to 1957. At this time no civilian commodity markets existed for uranium. Exploration resumed in 1965, driven by the expansion of nuclear power plants in North America, and continued until the late 1970s. Little work was undertaken during the 1980s, a period of depressed uranium prices. Based on the limited available information, it appears that little or no regional uranium exploration has been undertaken in the district since the 1970s. Work undertaken in the 2000s and 2010s seems to have focused on expansion drilling and further development of existing resources at the Abeta (aka Eco Ridge), Roche (aka Teasdale Lake) and Banana Lake deposits.

Uranium exploration activities within NickelX's Project area occurred exclusively during the period 1952 to 1974. During this time, a total of 35 diamond core holes were completed within the Project for a total downhole length of c. 7,789 m. The median hole depth was c. 132 m. The deepest hole had a downhole length of c 1,664 m; the shortest was less than 12 m long. Historic drillholes completed at uranium occurrences within or immediately adjacent to NKL's Project area are listed in Table 1. More specific accounts of the exploration undertaken at these occurrences is provided below.

To NickelX's knowledge, which is based on the Ontario Drill Hole and Assessment File Databases (https://www.hub.geologyontario.mines.gov.on.ca/), no uranium exploration drilling has been carried out within the Project since 1975, a hiatus of 50 years. Importantly, this hiatus coincides with vast improvements in our exploration concepts and technologies such as the resolution and depth penetration capabilities of our geophysical tools and sensitivity and detection limits of our geochemical tools.

<u>Uranium occurrences within and immediately adjacent to the Project</u>

The southern part of NickelX's Elliot Lake Uranium Project, subdivided into the Quirke West and Whiskey claim blocks, lies along strike from the historic Elliot Lake uranium production centre, covering similar geology in a large synclinal fold structure known as the Quirke Syncline. The large historic Quirke No 1 mine is only 6 km to the E of the Quirke West claims (Figures 3 and 4).

Despite the proximity to Quirke No 1, only 10 angled diamond core holes have been completed within the Quirke West claim blocks (Table 1). Four of these holes targeted the Crazy Lake occurrence whilst the nearby Gods Lake occurrence was tested by three drill holes.

- The <u>Crazy Lake</u> occurrence was drilled by Hanna Mining Company in 1968. The corresponding drilling records are poorly legible. According to the Ontario Geological Survey (OGS), the "drilling intersected a few quartz pebble conglomerate bands. The average assays were 0.023% U₃O₈ over 6 ft [1.83 m]. From bands that ranged in depth from 80 to 1719.7 ft [c. 24.3 to 524.0 m] below surface" (Ontario Mineral Inventory Record MDI41J10SW00053). No laboratory assays exist for these holes, suggesting that the reported grades represent gamma readings that were converted to equivalent U₃O₈ values [eU₃O₈] using a probe-specific conversion factor. It is not clear, which formation the intersected conglomerates belong to.
- Drilling by Gods Lake Mines Ltd in 1954 at the <u>Gods Lake</u> occurrence intersected thin, slightly radioactive pebble beds of the Mississagi Formation, the main uranium host in the Hough Group. According to Ontario Mineral Inventory Record MDI41J10SW00054,

⁷ Robertson, J.A., Gould, K.L. (1983). Uranium and thorium deposits of northern Ontario. Ontario Geological Survey Mineral Deposits Circular 25, 152 p.



the conglomerate beds "occur within an arkosic matrix and contain sparse pyrite and chalcopyrite. The best probe reading was 460 counts per minute over 1.5 feet [c. 0.5 m]."

The northern part of NickelX's Elliot Lake Uranium Project, subdivided into the Kirkpatrick and Inspiration claim blocks, lies to the north of the Quirke Syncline, across a major regional fault zone known as the Flack Lake thrust fault. The Huronian Supergroup in this area is dominated, at surface, by the Cobalt Group. In particular the Lorrain Formation, which is the main uranium host of the Cobalt Group. A geological section by Robertson (1976) suggests that the Cobalt Group in this area forms part of a fault-truncated fold limb. Whether this limb belongs to an anti- or syncline is, at this stage, unknown to NickelX.

Two uranium occurrences have been recorded in the Kirkpatrick claim block:

- In 1954, Blue Lake Mining Syndicate Ltd completed two drillholes at the <u>Kirkpatrick Lake</u> occurrence. According to Ontario Mineral Inventory Record MDI41J11NE00012, this drilling intersected "radioactive thin conglomerate of the Lorrain Formation."
- Drilling by Norgold Mines Ltd at the <u>Iron Lake</u> occurrence in 1966 reportedly intersected "interbedded quartzite and radioactive conglomerate of the Lorrain Formation" (Ontario Mineral Inventory Record MDI41J10NW00013).

The Inspiration claim block, located some 16 km to the E of the Kirkpatrick claim block, contains three uranium occurrences and surrounds three additional uranium occurrences that are within less than one kilometre of the claim block boundary:

- Drilling by Gaitwin Exploration Ltd at the <u>Gaitwin</u> occurrence in 1955 reportedly intersected uranium mineralisation in a "ferruginous feldspathic conglomerate bed of the Lorrain Formation. The bed is 5 feet [1.52 m] wide and extends for 1100 feet [335.28 m]. Geiger counter readings showing radioactivity five times background along this bed" (Ontario Mineral Inventory Record MDI41J10NE00026).
- In 1953, A. and W. Hanson (prospectors?) completed six drillholes at the <u>Inspiration</u> occurrence. According to Ontario Mineral Inventory Record MDI41J10NE00025, this drilling intersected "radioactivity in Lorrain conglomerate and quartzite. The average assay was 0.01 % U3O8 (radiomentric equivalent) over 29.6 feet [c. 9.02 m]."
- The <u>Consolidated Golden</u> occurrence remains undrilled. It is centred upon a ground radiometric anomaly identified by Consolidated Golden Arrow Mines Ltd in 1968 (Ontario Mineral Inventory Record MDI41J10NE00030).
- The <u>Mattaini</u> occurrence (not owned by NickelX) was drilled by Belfast Mines Ltd in 1955. According to Ontario Mineral Inventory Record MDI41J10NE00027, at Mattaini "a differentiated Nipissing diabase sill intrudes interbedded quartzite and hematitic radioactive conglomerate of the Lorrain Formation. Granodiorite zones in the diabase contain scattered chalcopyrite, pyrite, bornite and specularite. Some of the zones intersected in drilling are radioactive up to 15 times background. Assays from 10 radioactive zones, averaging 2.5 feet [0.76 m] thick were 0.09 % U3O8 (radiometric equivalent)."
- The <u>Rawhide</u> occurrence (not owned by NickelX) was drilled by Rawhide U Mines Ltd in 1969. According to Ontario Mineral Inventory Record MDI41J10NE00029, the Rawhide occurrence comprises "hematized Lorrain quartzite near Nipissing diabase contact." The area consists of "two areas of mineralization, 200 to 250 feet [60.96 to 76.20 m] apart, were located near the western boundary of former claim \$150104. The



quartzite in this area has been hematitized near the contact with a diabase sill. Drilling intersected feldspathized diabase. Assays of samples taken here were 0.02 % U3O8 [equivalent] over 1.4 feet [0.42 m] and 0.02% ThO2 over 5 feet [1.52 m]."

• The <u>D. Weston</u> occurrence (not owned by NickelX) is undrilled. It is centred upon a ground radiometric anomaly identified by Weston & Company Inc in 1968. The latter described it as a "radioactive zone in red to purple coloured quartz pebble conglomerate [that] is approximately 40 feet [12.19 m] long and 10 to 12 feet [3.05 to 3.66 m] wide. Radioactivity was reported to be up to 10 times background" (Ontario Mineral Inventory Record MDI41J10NE00028).

The Company regards the historical results as clear evidence of uranium fertility and prospectivity as well as obvious starting points for any follow up exploration activities.

Table 1. Summary of uranium occurrences within NKL's Elliot Lake Project, including of the diamond historic drillholes completed at these occurrences. Coordinates are given in the NAD27 UTM Zone 17 N coordinate system. Ontario Geological Survey (OGS) assessment files can be located at and downloaded from https://www.hub.geologyontario.mines.gov.on.ca/. Notes: No laboratory assays exist for any of the holes reported below. The equivalent U₃O₈ [eU₃O₈] values reported here represent gamma readings that were converted to using a probe-specific conversion factor. The readings were presumable taken at the time of drilling and drill core logging. The corresponding historical assessment files are often limited to drill hole logs, and the latter are often had-written and poorly legible. As such, NickelX relied on and presented the data as represented by the OGS. The eU₃O₈ values reported below are historic in nature and not JORC 2012 compliant. However, they serve to indicate that previous exploration drilling intersected prospective uranium host rocks

Prospect & Reporting Company	Hole (ID)	Year	Easting (m)	Northing (m)	Azi (°)	Dip (°)	Hole Depth (m)	OGS Assessment File ID	Reported Mineralisation (eU3O8)
	9	1968	355656 .59	5159228. 17	360	-60	129.27		Conglomerate beds intersected. The average probe readings
Crazy Lake (Hanna	10	1968	355490 .45	5159345. 43	360	-65	284.45		
Mining Co & Hecla	11	1968	355680 .09	5159257. 37	350	-60	Abando ned	41J10SW0042	were 0.023% U3O8 over 6 ft [1.83 m]
Mining Co of Canada)	12	1968	355863 .14	5159623. 68	360	-60	134.90		from beds that ranged in depth from 80 to 1719.7 ft [c. 24.3 to 524.0 m] below surface
	A-1	1954	360858 .38	5157659. 92	151	-46	118.90	Thin, slightly radioactive conglomerate beds intersected. 41J10SW0051 The best probe reading was 460 counts per minute over 1.5 ft [c. 0.5	
Gods Lake	A-2	1954	360380 .36	5157882. 78	20	-45	160.67		beds intersected. The best probe reading was 460 counts per minute
(Gods Lake Mines Ltd)	A-3	1954	359722 .91	5157988. 31	50	-45	211.89		
Kirkpatrick Lake	BL-1	1954	345648 .58	5170062. 92	350	-80	229.57		Padioactive thin
(Blue Lake Mining Syndicate Ltd)	BL-2	1954	343529 .70	5170641. 59	360	-80	120.73	A1J11NE0002 Radioactive thin conglomerate beds intersected.	conglomerate
Iron Lake	66-1	1966	352805 .55	5170386. 22	360	-90	49.54		Interbedded quartzite and
(Norgold Mines Ltd)	66-2	1966	352771 .88	5170317. 58	360	-90	49.54	<u> </u>	radioactive conglomerate beds intersected.
Gaitwin (Gaitwin Exploration Ltd)	1	1955	371971 .15	5169260. 42	360	-90	301.83	41J10NE0013	Ferruginous feldspathic conglomerate bed intersected



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									that is 5 ft [1.52 m] wide and extends for 1100 ft [335.28 m]. Geiger counter readings showed radioactivity five times background along this bed.
	1-H	1953	382032 .18	5167001. 32	360	-90	134.15		Davelie and the
	2-H	1953	382119 .54	5166911. 40	360	-90	83.23		Radioactive conglomerate
Inspiration (A. and W.	3-H	1953	382221 .17	5166853. 26	360	-90	81.10	41 11 0 N E 0 0 0 0	and quartzite intersected.
Hanson -	4-H	1953	382346 .20	5166856. 19	360	-90	189.63	41J10NE0002	The average probe reading was 0.01% eU3O8
<u>(</u> ,	5-H	1953	381874 .41	5166856. 19	360	-90	18.60		over 29.6 ft [c. 9.02 m].
	6-H	1953	381661 .84	5166945. 32	360	-90	48.93		
		U	ndrilled C	ccurrence	(Surfac	e Radio	metric And	omaly)	
Consolidate									
d Golden (Consolidat ed Golden Arrow Mines Ltd)	N/A	1968	381350 .00	5168303. 00	N/A	N/A	N/A	41J10NE0009	Radioactive zone in purple colored quartz pebble conglomerate.
	C	ccurren	ces Locat	ed Outside	but Imn	nediate	ly Adjacen	t to NKL Project	
D. Weston (Weston & Company Inc)	N/A	1969	376995 .00	5168071. 00	N/A	N/A	N/A	41J10NE0010	Radioactive zone in red to purple colored quartz pebble conglomerate c. 40 ft [12.19 m] long and 10 to 12 ft [3.05 to 3.66 m] wide. Radioactivity was reported to be up to 10 times background.
	S-1	1955	374874 .33	5167301. 79	355	-45	132.93		Interbedded quartzite and
	S-2	1955	374825 .85	5167300. 86	315	-45	162.50		hematitic radioactive
	S-3	1955	374844 .49	5167231. 84	315	-45	163.11		conglomerate. Some of the zones
Mattaini	S-4	1955	374751 .74	5167283. 54	315	-45	165.85		intersected in drilling are
(Belfast Mines Ltd)	S-5	1955	374747 .78	5167441. 74	360	-90	458.84	41J10NE0014	radioactive up to 15 times
	S-6	1955	375293 .05	5167168. 65	360	-90	297.26		background. Probe readings from 10 radioactive zones, averaging 2.5 ft [0.76 m] thick were 0.09 % eU3O8.
Rawhide	R69-1	1969	376025 .94	5166381. 40	337	-45	62.50		Two areas of mineralisation, 200
	R69-2	1969	376027	5166379.	337	-60	79.27	41J10NE0015	to 250 ft [60.96 to
(Rawhide U Mines Ltd)	K07-Z	1707	.28 376024	52 5166378.					76.20 m] apart. Hematized





	376023 5166380.			feldspathized diabase intersected. Probe readings
R69-4 196	.33 51	360 -45	132.01	were 0.02% eU3O8 over 1.4 ft [0.42 m] and 0.02% ThO2 over 5 ft [1.52 m].

Exploration targets

An initial desktop study identified three priority targets, all of which are located within broad domains of interpreted and demonstrated uranium prospectivity (Figure 5):

- 1. Crazy Lake-Gods Lake Trend (Quirke West claim block): This trend, along strike from the large historic Quirke No 1 mine c. 14 km to the E, covers highly prospective geology, including the extremely well endowed Matinenda Formation (Elliot Lake Group). Historic drilling of this trend has been minimal with only seven drillholes completed with the claim block. The adjacent Flack Lake thrust fault and subsidiary fault structures may have served as pathways for hydrothermal fluids, aiding in overprinting and or enhancing any existing uranium mineralisation.
- 2. Gaitwin-Inspiration Trend (Inspiration claim block): This trend, potentially developed within the Lorrain Formation (the main uranium host of the Cobalt Group) and marked by the Gaitwin, Mattaini, D. Weston, Rawhide, Consolidated Golden and Inspiration uranium occurrences. Structurally, this trend is interpreted to be developed along an E-W-striking fold limb that is cut by NE-SW-striking cross faults. Drilling has been very limited in this area with only 10+ holes completed over a 17 by 3 km area. Most of these holes were drilled at the Mattaini and Inspiration uranium occurrences.
- 3. Iron Lake Trend (Kirkpatrick claim block): A potential repetition of the Gaitwin-Mattaini-Rawhide-Inspiration Trend to the E.
- 4. Quirke Fold Hinge Trend (Whiskey claim block): Requires a more detailed assessment of previous drilling and available geophysical data to better constrain the local geology and identify clear targets. This work is ongoing.



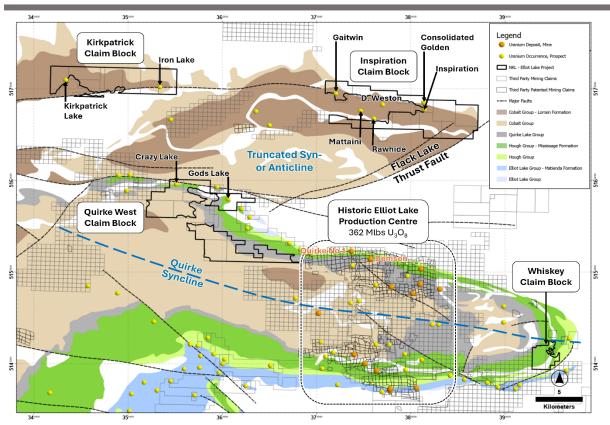


Figure 3. Map of the Elliot Lake Uranium Project and surrounds showing the main geological subdivisions of the Huronian Supergroup.

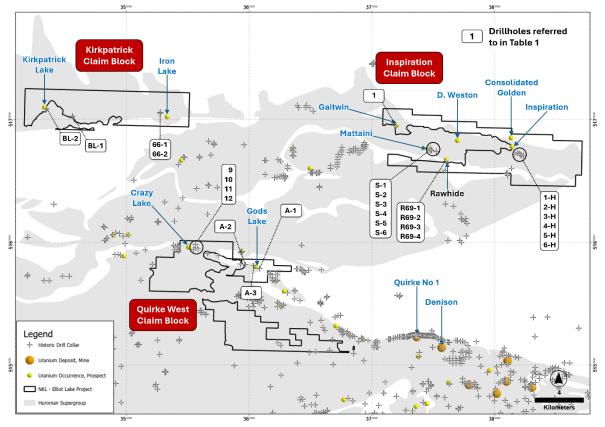


Figure 4. Map of drill collars within or immediately adjacent to NKL's Project (see Table 1 for details).



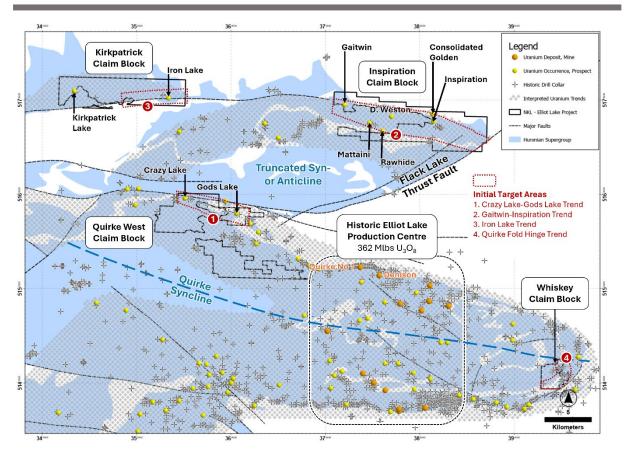


Figure 5. Map illustrating domains of interpreted and demonstrated uranium potential. Also shown are historic drill collar locations and initial target areas identified in a desktop study.

Criticality of uranium in Canada and Ontario

In December 2022 the Minister of Natural Resources released The Canadian Critical Minerals Strategy⁸, which identified uranium as a critical mineral to cover industrial activities from geoscience and exploration to mineral processing. A 30% critical mineral exploration tax credit introduced in April 2022 is intended to support specified exploration expenditures, applicable to specific critical minerals including uranium⁸.

The local Ontario Critical Minerals Plan⁹ is additionally offering a competitive corporate and mining tax rate and the Ontario Focussed Flow-Through-Share (OFFTS) tax credit. The Company is engaging the relevant authorities with regards to the potential of 30% critical minerals tax credit on exploration at Elliot Lake.

https://www.canada.ca/en/campaign/critical-minerals-in-canada/canadian-critical-minerals-strategy.html; https://world-nuclear.org/information-library/country-profiles/countries-a-f/canada-uranium.aspx#:~:text=In%20December%202022%20the%20Minister,including%20support%20for%20research%2C%20development

https://www.ontario.ca/page/ontarios-critical-minerals-strategy-2022-2027-unlocking-potential-drive-economic-recovery-prosperity



Next Steps:

The Company together with expert uranium contractors from CSA Global and Southern Geoscience are progressing preparations for field work including verification of uranium occurrence and drillhole locations, mapping, sampling and drill hole siting for a potential drill program in the first half of 2024. Concurrently the Company has commenced engagement with the relevant First Nations groups with respect to work activities in the near future, as well as evaluating further project generation and acquisitions in the district.

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ABOUT NICKELX LIMITED

NickelX Limited is an Australian, ASX listed, exploration company exploring for Uranium, Gold and Nickel across the SE and SW Yilgarn, WA, as well as the Elliot Lake district in Ontario, Canada. The Company is focussed in creating shareholder value via the acquisition, discovery and development, primarily in the uranium and gold sectors.

Competent Person's Statement

The information in this announcement that relates to Exploration Results is based on information compiled and conclusions derived by Dr Oliver Kreuzer, who is a Member (#2762) and Registered Professional Geologist (RPGeo #10073) of the Australian Institute of Geoscientists (AIG) and a Member (#208656) of the Australasian Institute of Mining and Metallurgy (AusIMM). Dr Kreuzer is an employee of NickelX Limited and has sufficient experience which is relevant to the style of mineralisation and types of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Dr Kreuzer confirms that the information in the market announcement is an accurate representation of the available data and consents to the inclusion in this report of the matters based upon the information in the form and context in which it appears.

Forward Looking Statements

Some statements in this announcement regarding estimates or future events are forward-looking statements. Forward-looking statements include, but are not limited to, statements preceded by words such as "planned", "expected", "projected", "estimated", "may", "scheduled", "intends", "anticipates", "believes", "potential", "could", "nominal", "conceptual" and similar expressions. Forward-looking statements, opinions and estimates included in this announcement are based on assumptions and contingencies which are subject to change without notice, as are statements about market and industry trends, which are based on interpretations of current market conditions. Statements regarding plans with respect to the Company's mineral properties may also contain forward looking statements.

Forward-looking statements are provided as a general guide only and should not be relied on as a guarantee of future performance. Forward-looking statements may be affected by a range of variables that could cause actual results to differ from estimated results expressed or implied by such forward-looking statements. These risks and uncertainties include but are not limited to liabilities inherent in exploration and development activities, geological, mining, processing and technical problems, the inability to obtain exploration and mine licenses, permits and other regulatory approvals required in connection with operations, competition for among other things, capital, undeveloped lands and skilled personnel; incorrect assessments of prospectivity and the value of acquisitions; the inability to identify further mineralisation at the Company's tenements, changes in commodity prices and exchange rates;



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currency and interest rate fluctuations; various events which could disrupt exploration and development activities, operations and/or the transportation of mineral products, including labour stoppages and severe weather conditions; the demand for and availability of transportation services; the ability to secure adequate financing and management's ability to anticipate and manage the foregoing factors and risks and various other risks. There can be no assurance that forward-looking statements will prove to be correct.



JORC Code, 2012 Edition – Table 1

Section 1. Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	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.	All data presented herein are historic and NickelX Limited (NKL) is yet to complete a full validation of the nature and quality of the sampling undertaken. At present, data are taken on face value. There can be no guarantee, however, that the historic data can be verified to the degree as required by and achieve compliance with the JORC Code 2012. This statement applies to all sections of this JORC Table 1 and 2.
	 Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. 	All data presented herein are historic and NKL is yet to complete a full validation of the nature and quality of the sampling undertaken. At present, data are taken on face value.
	 Aspects of the determination of mineralisation that are Material to the Public Report. 	All references to mineralisation are taken from reports and documents prepared by previous explorers or the Ontario Geological Survey (OGS) and have been taken at face value.
	• In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.	All data presented herein are historic and NKL is yet to complete a full validation of the nature and quality of the sampling undertaken. At present, data are taken on face value and are assumed to have been performed to "industry standard."





Criteria	JORC Code explanation	Commentary
Drilling techniques	 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). 	All historic drillholes reported here are diamond core holes. At this time hole diameters and detailed drilling information other than those presented in Table 1 (see body of text) have not been compiled. Relevant drill collar information has also been compiled in a map:
		Constituted Other Man To Constituted Other
Drill sample recovery	 Method of recording and assessing core and chip sample recoveries and results assessed. 	NKL is yet to complete validation of the data to determine whether this information has been collected in full.
	 Measures taken to maximise sample recovery and ensure representative nature of the samples. 	NKL is yet to complete validation of the data to determine whether this information has been collected in full.
	 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. 	NKL is yet to complete validation of the data to determine whether this information has been collected in full.
Logging	 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. 	All holes have been geologically logged however the quality and level of detail is yet to be verified.
	 Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography. 	All holes have been geologically logged however the quality and level of detail is yet to be verified.
	 The total length and percentage of the relevant intersections logged. 	All holes have been geologically logged however the quality and level of detail is yet to be verified.
Sub- sampling techniques and sample	If core, whether cut or sawn and whether quarter, half or all core taken.	It is believed that core has been sawn and sampled according to "industry standard" (half core) however this is yet to be validated.
preparation	 If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry. 	Various sampling methods have been employed historically for non-core drilling however the exact nature of this sampling is yet to be fully verified.
	 For all sample types, the nature, quality and appropriateness of the 	It is assumed that all sampling has been undertaken to "industry





Criteria	JORC Code explanation	Commentary
	sample preparation technique.	standard" however this is yet to be verified.
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	It is assumed that all sampling has been undertaken to "industry standard" however this is yet to be verified.
	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.	It is assumed that all sampling has been undertaken to "industry standard" however this is yet to be verified.
	Whether sample sizes are appropriate to the grain size of the material being sampled.	It is assumed that all sampling has been undertaken to "industry standard" however this is yet to be verified.
Quality of assay data and laboratory tests	 The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. 	It is assumed that all assaying has been appropriate to mineralization in the Project however this is yet to be fully verified.
	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.	• It is believed that geophysical surveys have been undertaken according to "industry standard", however this is yet to be validated. Previous explorers used Geiger Mueller counters and spectrometers. NKL is yet to complete a full validation of the nature and quality of the probe readings. At present, data are taken on face value and are assumed to have been performed to "industry standard." Handheld XRF tools did not exist at the time of the drilling, which was completed in the 1950s, 1960s and 1970s.
	 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. 	It is assumed that all quality control procedures have been appropriate however this is yet to be fully verified.
Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel.	Significant intervals have been taken from historic databases maintained by the OGS and are assumed correct however these data are yet to be fully verified.
	The use of twinned holes.	There are no records of any twinned holes.
	 Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. 	It is assumed that previous workers collected all data according to "industry best practice" at the time of collection however this is yet to be





Criteria	JORC Code explanation	Commentary
		fully verified.
	Discuss any adjustment to assay data.	 To NKL's knowledge, no adjustments have been made to any of the assay data.
Location of data points	 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. 	It is assumed that previous workers collected this information accurately however this is yet to be fully verified. A Mineral Resource or Ore Reserve has not been determined.
	Specification of the grid system used.	 NKL uses the following grid systems: WGS 1984 UTM Zone 17 N and NAD 1927 UTM Zone 17 N.
	Quality and adequacy of topographic control.	Given that all work reported here was undertaken prior to the mid-1970s, it seems likely that the quality and adequacy of topographic control was less than one would expect from modern work programs. Presumably, topographic control was achieved using a combination of high-quality aerial photography and topographic maps.
Data spacing and distribution	Data spacing for reporting of Exploration Results.	 Various data spacing has been used at various prospects by historic explorers. Data spacing is deemed appropriate with respect to the reconnaissance nature of the work completed by the previous operators.
	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.	Not applicable as a Mineral Resource or Ore Reserve is not determined.
	Whether sample compositing has been applied.	Not applicable as a Mineral Resource or Ore Reserve is not determined.
Orientation of data in relation to geological structure	 Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type. 	The orientation of controlling structures has not been fully determined and a variety of drill orientations have been used historically.
	 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. 	 It is unknown whether the relationship between the drilling orientation and the orientation of key mineralised structures may have introduced a sampling bias.
Sample security	The measures taken to ensure sample security.	Due to the historic nature of the data, this has not and may not be determinable. NKL believes that none of the historic samples have been preserved.





Criteria	JORC Code explanation	Commentary
Audits or reviews	 The results of any audits or reviews of sampling techniques and data. 	 NKL has not performed any audits at this time.

Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	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.	The details and status of NKL's tenements are provided in an ASX release by the company dated 14 February 2022. The tenements are newly staked multi-cell mining claims that are 100% owned by NKL unencumbered by any royalties or third-party agreements. All of the NKL's mining claims border nature conservation areas, including the Little White River Provincial Park, Rawhide Lake Conservation Reserve, Mississagi Provincial Park, Blind River Provincial Park and Glenn N. Crombie Conservation Reserve. These nature conservation areas are also bordered by several of NKL's competitors, including those with advanced exploration projects.
	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.	 All of NKL's mining claims are in good standing. NKL is unaware of any impediments for exploration on these claims.
Exploration done by other parties	 Acknowledgment and appraisal of exploration by other parties. 	Previous exploration has been completed on NKL's mining claims by a variety of companies. Please refer to the body of text for details and references to the historical drilling.
Geology	Deposit type, geological setting and style of mineralisation.	NKL' projects are located in the Elliot Lake uranium district, which hosts and is prospective for paleo quartz-pebble conglomerate ('paleoplacertype') uranium and rare earth element (REE) deposits. The geology of the Elliot Lake Project is dominated by the Paleoproterozoic-age Huronian Supergroup, a sequence of mainly sedimentary siliciclastic rocks that unconformably overlie Archean basement rocks of the Superior Craton. Please refer to the body of text for additional information and references.
Drill hole Information	A summary of all information material to the understanding of the exploration results including a tabulation of the following	Summaries of all significant historic drillhole data are provided in the body of text of this company release. The data presented herein pertain to





Criteria	JORC Code explanation	Commentary
	 information for all Material drill holes: easting and northing of the drill hole collar elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar dip and azimuth of the hole down hole length and interception depth hole length. 	all holes drilled that have returned anomalous uranium results. NKL has not yet undertaken any drilling at the project. All anomalous drillhole intervals are core lengths. True thickness is unknown.
	 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. 	Not applicable. As of the date of this announcement, no drilling has been conducted by NKL.
Data aggregation methods	 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. 	 All assays are based on a historical database, and have been treated on face value. No validation or check assaying has been carried out by NKL.
	 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. 	Not Applicable. As of the date of this announcement, no data aggregation has been conducted by NKL. It is not known whether aggregation measures were employed by the historic workers.
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	As of the date of this announcement, no drilling has been conducted by NKL. Previous workers reported equivalent uranium oxide (eU3O8) grades derived from calculations of radioactivity as measured with spectrometers or Geiger-Mueller counters. No information is provided in any of the historic accounts regarding these calculations. It is assumed that previous workers collected all data according to "industry best practice" at the time of collection however this appears to be impossible to verify.
Relationship between mineralisation widths and intercept lengths	These relationships are particularly important in the reporting of Exploration Results.	Historic drilling has been undertaken on various drill orientations, and, in most cases, may not represent true width intersections. Future work by NKL will involve validation and reinterpretation of historic results and the drilling of additional holes to determine the orientation of mineralisation and thus true widths.
	If the geometry of the mineralisation	The geometry of the mineralisation





Criteria	JORC Code explanation	Commentary
- Cilicia	with respect to the drill hole angle is known, its nature should be reported.	with respect to the drillhole angle is not known. All anomalous drillhole intervals are core lengths. True thickness is unknown.
	 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'). 	All anomalous drillhole intervals reported here are core lengths. True thickness is unknown.
Diagrams	 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. 	Please refer to the figures presented in the main body of text.
Balanced reporting	 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. 	All anomalous historic drillholes are reported in this announcement.
Other substantive exploration data	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.	 All data presented herein are historic and NKL is yet to complete a full validation of the nature and quality of the historic work undertaken within its mining claims. All material data encountered by NKL to date has been reported herein.
Further work	The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).	NKL is currently processing and interpreting relevant open-file geophysical data. The Company is also in the process of more thoroughly investigating and processing the available historic data, in particular the drilling and related probe data. In addition, the company, together with expert uranium contractors from CSA Global and Southern Geoscience, is progressing preparations for field work including field verification of mineral occurrence and drill collar locations, mapping, sampling and drill hole siting for a potential drill program in the first half of 2024. Concurrently the Company has commenced engagement with the relevant First Nations groups with respect to work activities in the near future, as well as evaluating further project generation and acquisitions



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Criteria	JORC Code explanation	Commentary
		in the Elliot Lake district.
	 Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive. 	Please refer to the figures presented in the main body of text.