#### **ASX Announcement**

13 September 2023



Gemini Uranium Discovery, Athabasca Basin, Canada

# Drilling hits parallel mineralised structure, highlighting significant growth potential

Plus, 17.6m at 0.43% eU<sub>3</sub>O<sub>8</sub> uranium intersected within the Gemini Discovery

# **Highlights**

- Drilling at the Gemini Uranium Discovery has discovered a new parallel structure with intense hydrothermal alteration, uranium pathfinders and 2.2m of 0.08% eU<sub>3</sub>O<sub>8</sub>, incl. 0.5m of 0.12% eU<sub>3</sub>O<sub>8</sub>
- The result, which was in the last hole of the recently-completed program (GEM23-075), is 300m east of the Gemini Mineralised Zone "the GMZ"
- The new structure is considered highly promising because it shows there is potential for new zones to be discovered along this trend, which remains largely untested
- The drilling program also included four holes at the GMZ, which returned significant intersections, including:
  - 27.6m of composite mineralisation, incl. 17.6m of 0.43% eU<sub>3</sub>O<sub>8</sub><sup>1</sup> with one subinterval of 1.2% eU<sub>3</sub>O<sub>8</sub> over 0.2m in GEM23-072A.
  - 11.3m of composite mineralisation, incl. 0.62% eU<sub>3</sub>O<sub>8</sub> over 0.4m in GEM23-069A.
  - 2.4m of composite mineralisation in GEM23-066, which extended the mineralisation 50m down-dip at the GMZ.
- Uranium mineralisation at the GMZ is now defined over 250m x 290m

**92 Energy** Managing Director Siobhan Lancaster said: "The discovery of this parallel structure is highly significant because it demonstrates the potential for substantial growth at Gemini. The hole returned uranium mineralisation and key uranium pathfinders with intense alteration, making it ripe for follow-up drilling".

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 $<sup>^{1}</sup>$  eU<sub>3</sub>O<sub>8</sub> grades are calculated as equivalent uranium grades derived from a calibrated 2GHF-1000 total gamma probe.



**92 Energy Limited (ASX: 92E, OTCQX: NTELF)** is pleased to provide an update on the completion of the summer drill program at its 100%-owned Gemini project in Canada's world-class Athabasca Basin (Figure 1).

A total of 13<sup>2</sup> drillholes were completed, totalling 3,659m, with 1,385m in 4 holes located at the GMZ and 2,274m in 9 holes evaluating exploration areas (Figure 1, Tables 1 and 2).

# **GMZ** Drilling

GEM23-064, 066, 069A and 072A were drilled to expand the footprint of the GMZ and to confirm the continuity of thick and high-grade zones intersected in previously untested areas in and around the zone.

GEM23-072A was drilled in a 75m gap in the southern portion of the GMZ between previously drilled fences where high-grade uranium mineralisation was intersected, including 9.66%  $U_3O_8$  over 0.5m within 1.47%  $U_3O_8$  over 5.0m in GEM23-061. GEM23-072A intersected the targeted mineralised zone approximately 60m northwest of GEM23-061 and returned 27.6m of mineralisation, including 17.6m of 0.43%  $eU_3O_8$ , including a subinterval of 1.12%  $eU_3O_8$  over 0.2m (refer to Table 1). This area remains under-tested and requires future drilling on section and along strike to the southeast to determine the extent of the high-grade mineralisation in GEM23-061.

GEM23-066, a 50m step-out down-dip to the east intersected 0.16% eU<sub>3</sub>O<sub>8</sub> over 1.8m, extending the mineralisation 50m down-dip (refer to Table 1). The GMZ remains open down-dip.

GEM23-069A was drilled to test a 70m gap in the north end of the GMZ to extend intercepts of mineralisation encountered in previous drilling campaigns. The hole intersected a composite total of 11.3m of uranium mineralisation starting at 152.5m depth (refer to Table 1).

 $<sup>^2</sup>$  Drillholes GEM23-069 and GEM23-072 were abandoned due to excess deviation and restarted as GEM23-069A and GEM23-072A, respectively.



Figure 1: Plan map showing the Summer 2023 and historical drillholes and interpreted Moving Loop EM conductor axes superimposed on VTEM CVG image.

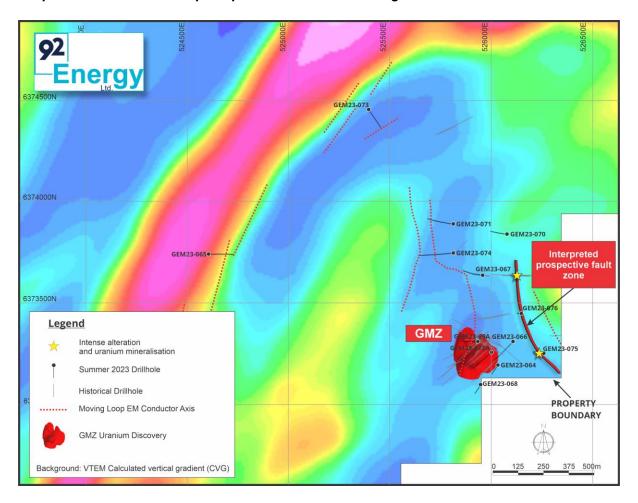


Table 1: The GMZ Summer 2023 Results

Drillhole ID	Easting*	Northing*	Elevation (masl)	Total Depth (m)	Azimuth (deg)	Dip (deg)		From (m)	To (m)	Interval (m)	eU₃O₅ (%)	eU₃Oଃ (ppm)
GEM23-064	526033	6373191	463	341	224	-82			No anon	nalous result	S	
GEM23-066	526107	6373306	465	359	224	-65		302.5	304.3	1.8	0.16	1,604
								305.9	306.3	0.4	0.08	793
								313.8	314.0	0.2	0.06	620
GEM23-069	525939	6373307	460	78	275	-60		Hole aba	ndoned du	ie to excessiv	ve deviatio	n
GEM23-069A	525939	6373307	460	231	275	-60		152.5	163.8	11.30	0.18	1,823
							incl.	161.6	162.0	0.40	0.62	6,185
GEM23-072	525998	6373254	463	53	224	-65		Hole aba	ndoned du	ue to excessiv	ve deviatio	n
GEM23-072A	525998	6373254	463	323	224	-65		222.5	232.5	10.0	0.09	891
								250.1	267.7	17.6	0.43	4,345
							incl.	258.0	259.0	1.0	0.88	8,800
							incl.	262.8	263.0	0.2	1.12	11,220

<sup>\*</sup>All coordinates are in NAD83 for UTM Zone 13N



## **Exploration drilling**

A total of 9 exploration holes were drilled during the program. The aim of the exploration drilling was to test the potential for new zones of mineralisation.

The last hole completed was the highlight. GEM23-075 encountered intense hydrothermal clay and chlorite alteration<sup>3</sup> in a major fault zone that is interpreted to be parallel to, and 300m east of the GMZ.

Drillhole GEM23-075 also intersected uranium mineralisation below the fault zone associated with hematite alteration, including 0.08% eU<sub>3</sub>O<sub>8</sub> over 2.2m with a subinterval of 0.5m of 0.12% eU<sub>3</sub>O<sub>8</sub> (refer to Figures 2 and 3). The newly discovered parallel structure, with very limited drilling to date and approx. 600m of virtually untested strike length, is a high-priority target for additional uranium mineralisation in future drilling programs.

Drillhole GEM23-065 was drilled approx. 1.3km west-northwest of the GMZ and tested a ground Step Wise Moving Loop ("SWMLTEM") conductor identified in the Company's 2023 survey over the "western limb" exploration area (See ASX announcement dated 27 June 2023). The drillhole encountered brittle faulting with minor hydrothermal alteration. Further drilling is required to explain the SWMLTEM targets along the western trend.

Drillhole GEM23-067 was drilled 280m north of the Gemini Uranium Discovery, where previous drilling encountered intense hydrothermal alteration with uranium and gold mineralisation in drillholes GEM23-053 and 055, which included  $0.14\%~U_3O_8$  over 0.5m in GEM23-053 and 5.2~g/t Au in GEM-23-055. Drillhole GEM23-067 successfully intersected the targeted fault zone up-dip on this section, however, did not return any significant uranium mineralisation. The area between GEM23-067 and the GMZ remains untested over a strike length of approx. 280m and requires further drilling.

Table 2: Gemini Exploration Drillhole Locations.

Drillhole ID	Easting	Northing	Elevation (masl)	Total Depth (m)	Azimuth (deg)	Dip (deg)		From (m)	To (m)	Interval (m)	eU₃O <sub>8</sub> (%)	eU₃Oଃ (ppm)
GEM23-065	524605	6373740	469	278	90	-65			No ar	nomalous res	sults	
GEM23-067	525959	6373636	461	200	270	-60			No ar	nomalous res	sults	
GEM23-068	525948	6373098	463	255	224	-80			No ar	nomalous res	sults	
GEM23-070	526079	6373840	459	125	270	-45			No ai	nomalous res	sults	
GEM23-071	525818	6373892	461	224	270	-55			No ai	nomalous res	sults	
GEM23-073	525396	6374454	458	217	148	-60			No ai	nomalous res	sults	
GEM23-074	525806	6373751	456	254	260	-50			No ar	nomalous res	sults	
GEM23-075	526255	6373250	465	419	270	-85		277.9	280.1	2.2	0.08	786
							incl.	278.8	279.0	0.2	0.13	1,265
							incl.	279.7	280.0	0.3	0.11	1,107
GEM23-076	526150	6373447	462	260	270	-85			No ai	nomalous res	sults	

<sup>\*</sup>All coordinates are in NAD83 for UTM Zone 13N  $\,$ 

<sup>&</sup>lt;sup>3</sup> Pending clay spectrometry analysis results from summer 2023.



Figure 2: Geological cross-section showing drillhole traces for GEM23-075, 072A and 066 with downhole gamma probe results, historical drillholes and simplified outline of the GMZ.

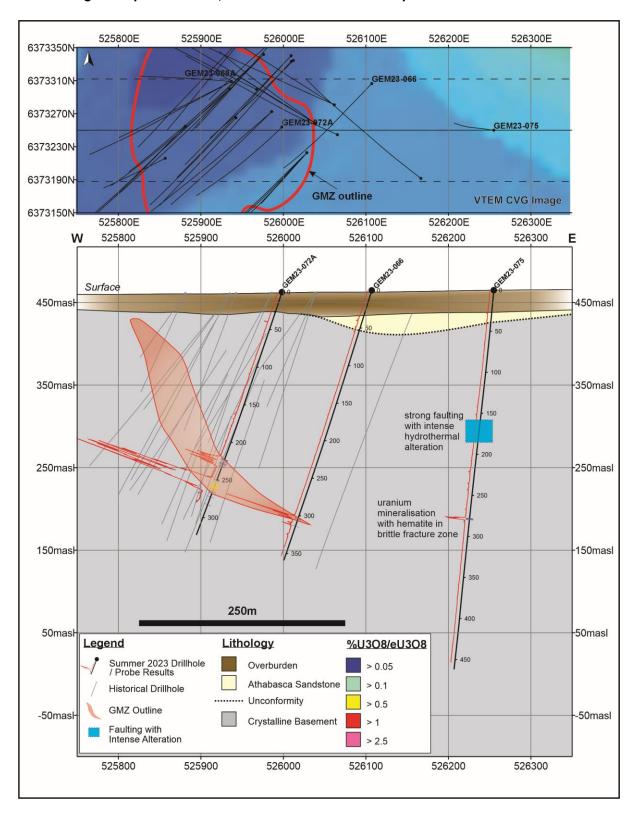




Figure 3: Strong brittle faulting with intense hydrothermal alteration in GEM23-075



# **Next Steps**

Assay core samples from the summer 2023 drilling have been submitted to the SRC Geoanalytical Laboratory in Saskatchewan for analysis. The Company expects to receive the assays in 4-8 weeks.

The interpretation of geology at Gemini is ongoing, and the Company will plan a follow-up drill program in light of the recent results.

Authorised for ASX release by the Board of Directors.



#### **ENDS**

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### **ABOUT 92 Energy Limited**

92 Energy Limited (**ASX:92E, OTCX: NTELF**) is an Australian, ASX listed, uranium exploration company targeting high-grade unconformity-associated uranium in the prolific Athabasca Basin, Saskatchewan, Canada. On the fourth hole of its inaugural exploration drilling program, 92 Energy made a uranium discovery at its Gemini Project, known as the Gemini uranium discovery or 'GMZ'. The Gemini uranium discovery is a near-surface basement-hosted uranium discovery.

The Company owns a 100% interest in its 58 mineral claims in the world-class Athabasca Basin. These 58 claims make up the Company's 9 projects, namely Gemini, Tower, Clover, Powerline Creek, Wares, Wormboiler, Snowbird, Cable and Murphy.

www.92energy.com

## **Competent Person's Statement**

The information in this document as it relates to exploration results was provided by Serdar Donmez, a Competent Person who is a registered Professional Geoscientist (P.Geo.) with the Association of Professional Engineers and Geoscientists of Saskatchewan (APEGS). Serdar Donmez is the VP of Exploration for 92 Energy Ltd and has sufficient experience which is 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'. Mr Donmez consents to the inclusion in this document of the matters based on the information in the form and context in which it appears.

Additionally, there is information in this report that relates to previously reported Exploration Results on the date specified in the body of the announcement (Announcements). The Company confirms that it is not aware of any new information or data that materially affects the Exploration Results information included in the Announcements. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the Announcements.



# JORC Code, 2012 Edition - Table 1 Section 1 Sampling Techniques and Data

	ampling Techniques and Data	Commentary
	-	
Criterion Sampling Techniques	Nature and quality of sampling (e.g. 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. Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.  Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.  Aspects of the determination of mineralisation that are Material to the Public Report.  In cases where 'industry standard' work has been done this would be relatively simple (e.g. '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 (e.g. submarine nodules) may warrant disclosure of detailed information.	<ul> <li>eU₃Oଃ grade results reported in this announcement are equivalent uranium (eU₃Oଃ) grades derived from a calibrated Mount Sopris 2GHF-1000 triple gamma probe.</li> <li>Upon completion, every drillhole at the Gemini project is surveyed using a Mount Sopris 2GHF-1000 gamma probe attached to a 1,000m winch system.</li> <li>The 2GHF-1000 is a total count gamma probe which measures radioactivity in a unit called a count per second (cps), every 10 centimetres down the length of a drillhole.</li> <li>Down and up direction surveys are recorded for each drillhole.</li> <li>All cps measurements are made through the drill steel with the probe suspended in drill mud/fluid.</li> <li>The 2GHF-1000 gamma probe used was calibrated in June 2022 at the Saskatchewan Research Council's (SRC) model borehole uranium calibration facility in Saskatoon, Saskatchewan.</li> <li>The SRC model borehole uranium calibration facility consists of four pits with known grades and thicknesses of uranium mineralization, ranging between 0.06 to 4.15% uranium.</li> <li>After surveying each of the test pits with the 2GHF-1000 gamma probe, a fifth-order polynomial equation with an R² value equal to 1 was derived based on the uranium grade encountered in each pit and the resulting average count per second reading across the uranium zone.</li> <li>This fifth-order polynomial was then applied to the cps readings of completed and gamma-probed drillholes from the Gemini project to get eU₃Oଃ grades.</li> </ul>
Drilling Techniques	• Drill type (e.g. core, reverse circulation, openhole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. 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).	<ul> <li>All holes are drilled using a Zinex A5 core drill.</li> <li>All drillholes are NQ (47.6 mm) diameter drill core, standard tube.</li> <li>Drill core is oriented by the logging geologists using a CHAMP ORI orientation tool.</li> </ul>



Drill Sample Recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>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.</li> </ul>	<ul> <li>Core recovery is calculated by measuring and recording the length of core between distance marker blocks.</li> <li>Drill crews are instructed to maximize core recovery. Drilling additives were used when necessary to aid with core recovery.</li> <li>There is no known relationship between recovery and grade on the Gemini property.</li> </ul>
Logging	<ul> <li>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.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul> <li>Drill core has been geologically and geotechnically logged to a level of detail sufficient to support mining studies and mineral resource estimation</li> <li>Logging is qualitative in nature and systematic core photos have been collected</li> <li>All the drill core sections relevant to this announcement have been geologically and geotechnically logged in detail</li> </ul>
Sub- sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all subsampling stages to maximise representivity of samples.</li> <li>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.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	No chemical assay of drill core is being reported, equivalent uranium concentrations reported in this announcement were derived from count-per-second readings in holes as outlined previously
Quality of assay data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>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.</li> <li>Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</li> </ul>	No rock samples in this announcement have been submitted for assay or laboratory tests     The SRC model borehole uranium calibration facility is one of only three uranium calibration facilities in North America     The facility was re-calibrated in 2006 by the Geological Survey of Canada borehole geophysics group and SRC



Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> <li>Accuracy and quality of surveys used to</li> </ul>	<ul> <li>Significant intersections have not been verified by independent or alternative company personnel</li> <li>No holes have been twinned</li> <li>Total count per second measurements from a downhole gamma probe were converted to eU<sub>3</sub>O<sub>8</sub> grades using the method described previously</li> <li>Collar locations were determined with</li> </ul>
data points	locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.  • Specification of the grid system used.  • Quality and adequacy of topographic control.	Trimble Differential GPS/GNSS  Drillhole orientation was measured at 50m intervals with a REFLEX EZ-TRAC surveying tool The grid system is UTM (NAD83-13). The Project exhibits subdued relief with undulating hills The Company has a detailed digital elevation model (DEM) derived from a 2021 airborne geophysical survey
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>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.</li> </ul>	<ul> <li>Drillhole pierce points at the GMZ are located approximately 25 metres apart</li> <li>The drillhole pierce point spacing is considered appropriate for the current stage of exploration at the Gemini Project</li> </ul>
Orientation of data in relation to geological structure	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>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.</li> </ul>	At this early stage of exploration, mineralization thickness, orientation and geometry are not well- constrained
Sample security	The measures taken to ensure sample security	Drill core samples are stored in tamper-proof pails at the Gemini camp until ready for shipment     Once ready, the pails of drill core samples are transported by helicopter to a transport truck, then delivered directly to the SRC Geoanalytical Laboratory in Saskatoon, Saskatchewan     Some pails may be radioactive; therefore, a strict chain of custody is in place when transporting samples from site to the laboratory
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	No audits or reviews have been completed