IsoEnergy Commences Drilling to Expand Hurricane Zone and Explore Larocque East Project, Provides Geiger Drilling Update

Saskatoon, SK, September 3, 2021 – IsoEnergy Ltd. ("**IsoEnergy**" or the "**Company**") (**TSXV: ISO; OTCQX: ISENF**) is pleased to announce that following the completion of drilling at its Geiger property, drilling has commenced at its 100% owned Larocque East project, home to the Hurricane zone high-grade uranium deposit.

Tim Gabruch, President and Chief Executive Officer commented: "IsoEnergy's summer exploration program has been progressing well. We recently completed our 12-hole drill program at Geiger and the team has moved over to our Larocque East project where drilling has now begun. The work at Geiger was completed successfully, and safely, and marks IsoEnergy's first drill program outside of the Larocque East property since the Hurricane zone was discovered during the summer program in 2018. Work now transitions back to our flagship Larocque East site, home of the Hurricane zone. We are excited to get back on the ground there, having delayed our return because of COVID-19.

Andy Carmichael, Vice President of Exploration commented: "Drilling in 2020 was the most successful to date at Hurricane with intersections of strong mineralization over significant widths leading to the identification of a high-grade domain. The team is excited to resume growing the Hurricane zone as well as drill testing high-priority exploration targets, particularly along the fertile Larocque Lake conductive trend."

As announced on July 26th, 2021, diamond drilling at Larocque East will comprise 30 drill holes totalling 12,000 metres and will have three objectives: Expansion; Infill; and Exploration. Twelve drill holes are planned to expand the footprint of the Hurricane zone and will include drilling at both the western and the eastern sides of the zone. Four infill drill holes are planned between existing drill fences to provide valuable information on the continuity of the higher-grade portions of the zone. Figure 2 shows the Expansion and Infill target areas in plan view. Fourteen exploration drill holes are planned in two target areas. The main target area is a three-kilometre-long section of the Larocque Lake trend where DC-resistivity signatures similar to that of Hurricane are present and historical drilling has intersected alteration, structures, graphitic basement, and anomalous geochemistry. The second target area includes trends of decreased resistivity in the sandstone and basement and is located southeast of and subparallel to the Hurricane zone stratigraphy. Figure 3 shows the exploration target areas in plan view.

Geiger Drilling Complete

Diamond drilling at Geiger concluded in August. Twelve diamond drill holes totalling 4,428 metres were completed to evaluate an area where historical drill holes intersected anomalous results. Geological interpretation is underway and geochemical assay results are expected in a few weeks. While several drill holes intersected positive features, the most noteworthy result is the discovery of a zone of significant sandstone alteration associated with the 3B electromagnetic (EM) conductor. The 3B conductor was identified by IsoEnergy in July, during a reinterpretation of historical airborne geophysical survey data (Figure 4).

The newly discovered alteration zone was first intersected by drill hole GG21-21 while following-up anomalous historical drill hole Q3-006 by evaluating the 3A conductor (Figure 4). GG21-21 intersected wide intervals of moderately to strongly bleached sandstone cored by a 50-metre-long interval hosting structurally controlled clay enrichment, desilicified zones, and local hydrothermal hematite centred 100 metres south of the 3A conductor (Figure 5). GG21-27 followed-up GG21-21 by evaluating the sub-parallel 3B conductor and locating inferred basement structures controlling the alteration in the overlying sandstone. GG21-27 intersected moderately to strongly bleached intervals in the sandstone as well as a zone of graphitic faulting in the basement 155 metres below the unconformity which correlates to the centre of the 50-metre zone of increased alteration and structure in GG21-21. Importantly, the 3B conductor associated with this sandstone alteration and graphitic basement has been tested only indirectly by the two 2021 drill holes and is completely untested along its remaining 4.5 kilometres of strike length (Figure 4).

The Larocque East Property and the Hurricane Zone

The 100% owned Larocque East property consists of 33 mineral claims totaling 16,780ha. Two of the project's claims distal to the Hurricane zone are subject to a 2% Net Smelter Returns Royalty of which 1% may be bought back for $1Million at IsoEnergy's discretion. Larocque East is immediately adjacent to the north end of IsoEnergy's Geiger property and is 35km northwest of Orano Canada's McClean Lake uranium mine and mill.

Along with other target areas, the Larocque East Property covers a 15-kilometre-long northeast extension of the Larocque Lake conductor system; a trend of graphitic metasedimentary basement rocks that is associated with significant uranium mineralization at the Hurricane zone, and in several occurrences on Cameco Corp. and Orano Canada Inc.'s neighbouring property to the southwest of Larocque East. The Hurricane zone was discovered in July 2018 and was followed up with 29 drill holes in 2019 and an additional 48 drill holes in 2020. Dimensions are currently 575m along-strike, up to 75m wide, and up to 11m thick. The zone is open for expansion along-strike to the east and to the north and south on some sections. Mineralization is polymetallic and commonly straddles the sub-Athabasca unconformity 320 m below surface. The best intersection to date is 38.8% U_3O_8 over 7.5m in drill hole LE20-76. Drilling at Cameco Corp.'s Larocque Lake zone on the neighbouring property to the southwest has returned historical intersections of up to 29.9% U_3O_8 over 7.0m in drill hole Q22-040. Like the nearby Geiger property, Larocque East is located adjacent to the Wollaston-Mudjatik transition zone - a major crustal suture related to most of the uranium deposits in the eastern Athabasca Basin. Importantly, the sandstone cover on the Property is thin, ranging between 140m and 450m in previous drilling.

Figure 1 – IsoEnergy Athabasca Basin Projects

Figure 2 – Larocque East Expansion and Infill Drilling Areas

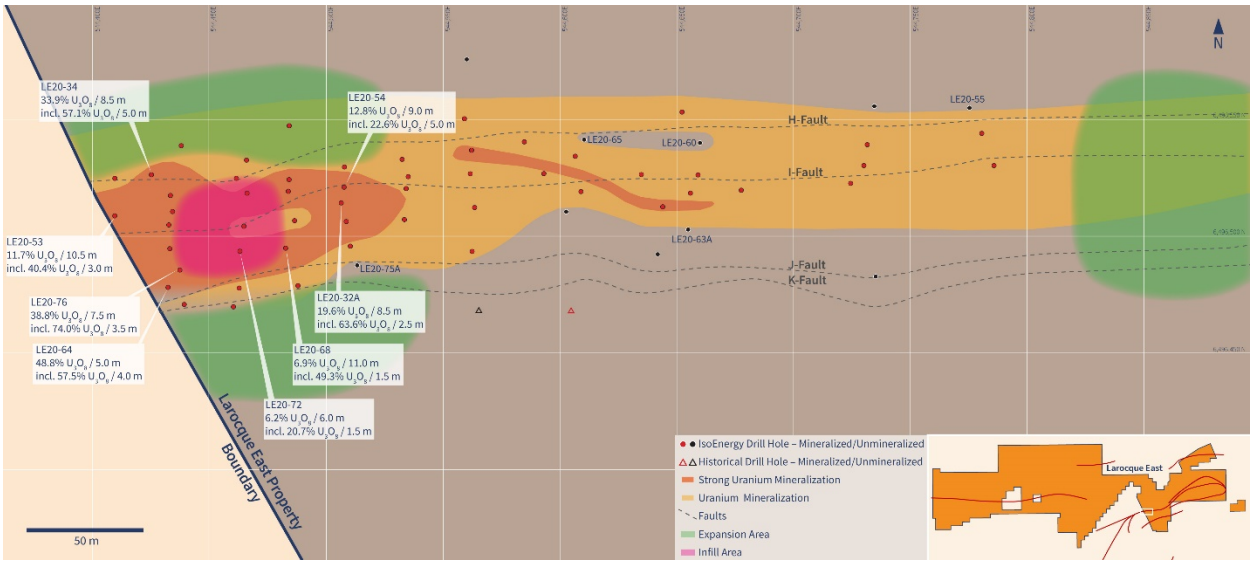


Figure 3 – Larocque East Exploration Drilling Areas

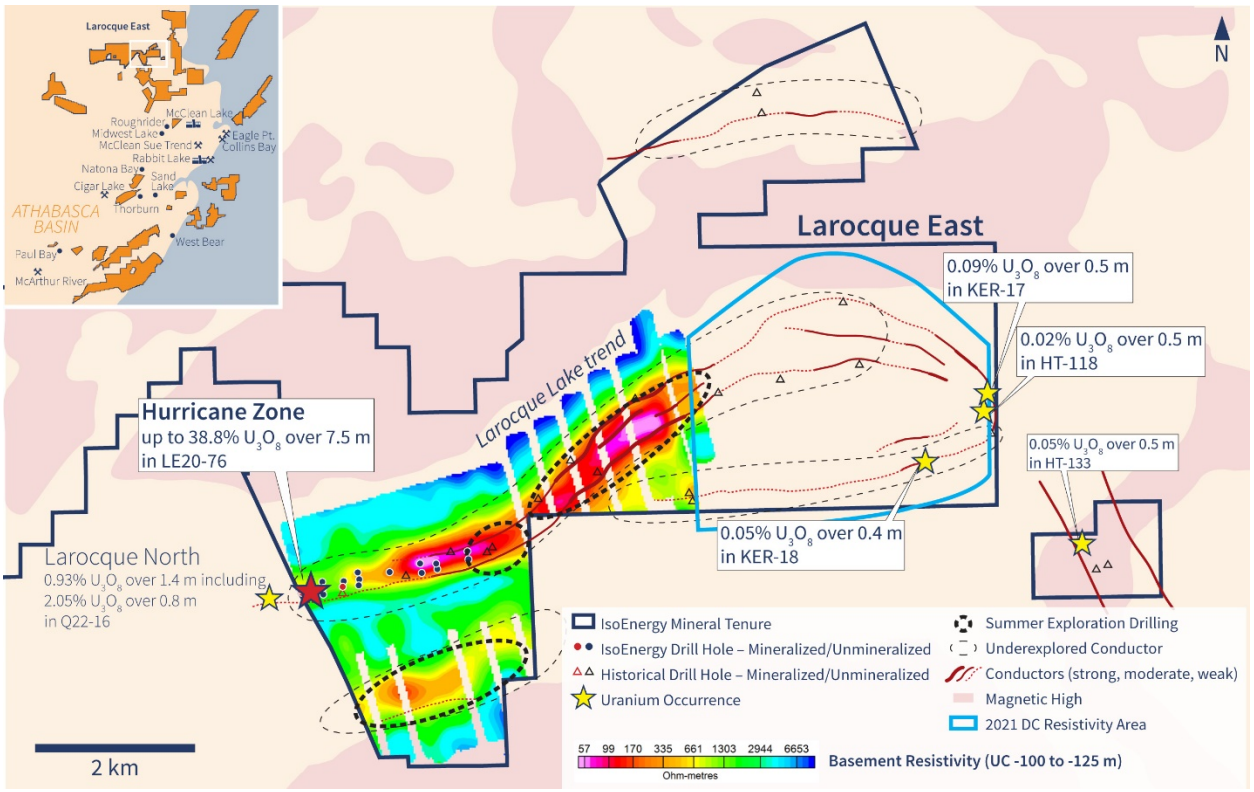


Figure 4 – Geiger 2021 Drilling Plan View with Section Q3-3700E Location *(UNDER CONSTRUCTION)*

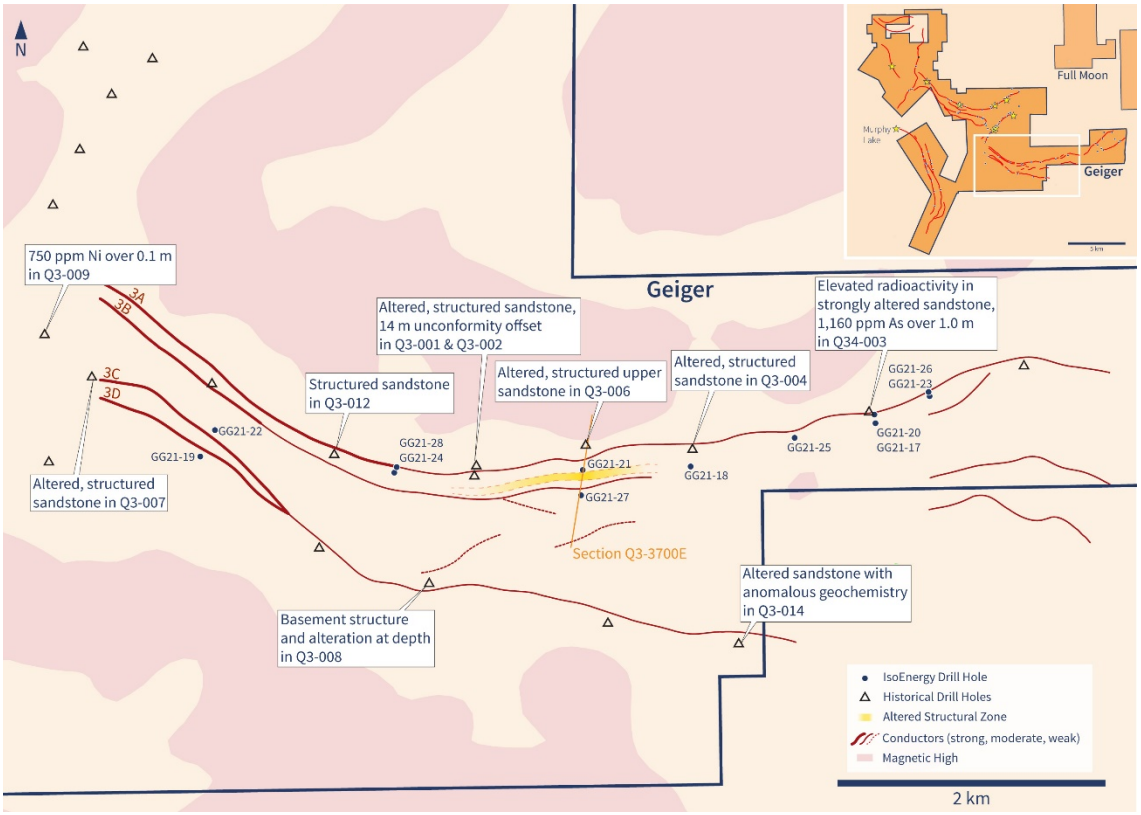
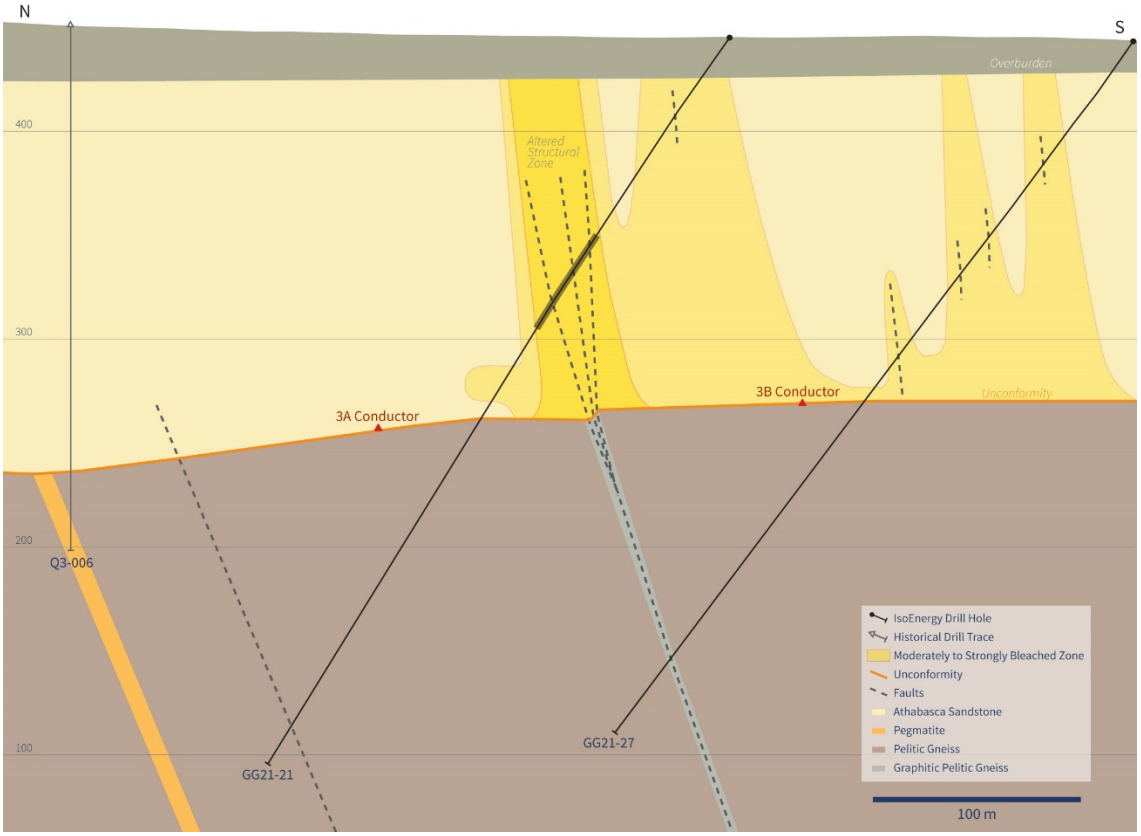


Figure 5 – Section Q3-3700E (Drill Holes GG21-21 and GG21-27) *(UNDER CONSTRUCTION)*



Qualified Person Statement

The scientific and technical information contained in this news release was prepared by Andy Carmichael, P.Geo., IsoEnergy's Vice President, Exploration, who is a "Qualified Person" (as defined in NI 43-101 – *Standards of Disclosure for Mineral Projects*). Mr. Carmichael has verified the data disclosed. As mineralized drill holes at the Hurricane zone are oriented very steeply (-70 to -90 degrees) into a zone of mineralization that is interpreted to be horizontal, the true thickness of the intersections is expected to be greater than or equal to 90% of the core lengths. This news release refers to properties other than those in which the Company has an interest. Mineralization on those other properties is not necessarily indicative of mineralization on the Company's properties. For additional information regarding the Company's Larocque East Project, including its quality assurance and quality control procedures, please see the Technical Report dated effective May 15, 2019, on the Company's profile at www.sedar.com.

About IsoEnergy

IsoEnergy is a well-funded uranium exploration and development company with a portfolio of prospective projects in the eastern Athabasca Basin in Saskatchewan, Canada. The Company recently discovered the high-grade Hurricane Zone of uranium mineralization on its 100% owned Larocque East property in the Eastern Athabasca Basin. IsoEnergy is led by a Board and Management team with a track record of success in uranium exploration, development, and operations. The Company was founded and is supported by the team at its major shareholder, NexGen Energy Ltd.

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that the results of planned exploration activities are as anticipated, the price of uranium, the anticipated cost of planned exploration activities, that general business and economic conditions will not change in a material adverse manner, that financing will be available if and when needed and on reasonable terms, that third party contractors, equipment and supplies and governmental and other approvals required to conduct the Company's planned exploration activities will be available on reasonable terms and in a timely manner. Although the assumptions made by the Company in providing forward-looking information or making forward-looking statements are considered reasonable by management at the time, there can be no assurance that such assumptions will prove to be accurate.

Forward-looking information and statements also involve known and unknown risks and uncertainties and other factors, which may cause actual events or results in future periods to differ materially from any projections of future events or results expressed or implied by such forward-looking information or statements, including, among others: negative operating cash flow and dependence on third party financing, uncertainty of additional financing, no known mineral reserves or resources, the limited operating history of the Company, the influence of a large shareholder, alternative sources of energy and uranium prices, aboriginal title and consultation issues, reliance on key management and other personnel, actual results of exploration activities being different than anticipated, changes in exploration programs based upon results, availability of third party contractors, availability of equipment and supplies, failure of equipment to operate as anticipated; accidents, effects of weather and other natural phenomena and other risks associated with the mineral exploration industry, environmental risks, changes in laws and regulations, community relations and delays in obtaining governmental or other approvals.

Although the Company has attempted to identify important factors that could cause actual results to differ materially from those contained in the forward-looking information or implied by forward-looking information, there may be other factors that cause results not to be as anticipated, estimated or intended. There can be no assurance that forward-looking information and statements will prove to be accurate, as actual results and future events could differ materially from those anticipated, estimated or intended. Accordingly, readers should not place undue reliance on forward-looking statements or information. The Company undertakes no obligation to update or reissue forward-looking information as a result of new information or events except as required by applicable securities laws.