

# IsoEnergy Commences Athabasca Basin Winter 2025 Exploration Program

**Toronto, ON, January 14, 2025 – IsoEnergy Ltd. ("IsoEnergy" or the "Company") (TSX: ISO; OTCQX: ISENF)** is pleased to announce the commencement of its 2025 winter exploration program in the eastern Athabasca Basin, Canada (Figure 1) designed to build on the Company's successful 2024 season. A total of 8,800 metres of drilling are planned on the Larocque East project, which contains the high-grade Hurricane deposit, with mobilization to the project underway. The focus of the program is twofold, with drilling to test resource expansion potential near the Hurricane deposit and the evaluation of greenfield targets along the Larocque Trend ("Larocque Trend") east of Hurricane. Geophysical surveys are also planned on the Hawk, Evergreen and East Rim projects to advance these early-stage projects to the drill ready stage. A total budget of \$5.3 million has been approved for the winter exploration programs in the Athabasca Basin.

### Highlights

- Hurricane Deposit Resource Expansion
  - Approximately 2,800 metres of drilling in seven holes will target gaps in historic drilling near the Hurricane deposit and 2024's Target Area B (Figure 2).
  - Drilling will test areas where prior results indicate geochemical anomalies and alteration associated with fault extensions that control mineralization within the Hurricane resource (Figure 2).
- Greenfield Targets Along the Larocque Trend
  - Up to 6,000 metres of drilling in 15 holes will test a six-kilometre segment of the Larocque Trend east of the Hurricane deposit (Figures 3 and 4).
  - Drilling will focus initially on three target areas (D, E, and F) identified through 2024's integration of geophysical and geochemical data. The trend on which these target areas lie extends eastward on to IsoEnergy and Purepoint Uranium's joint venture announced late last year (Figure 2).
- Geophysical Surveys on Highly Ranked, Early-Stage Projects
  - Ground geophysical surveys are planned on the East Rim, Evergreen, and Hawk projects (Figure 1) to advance targets to the drill-ready stage.

Dan Brisbin, Vice President of Exploration, stated, "We are eager to launch our winter exploration program, which includes testing deposit expansion targets around the margins of the Hurricane deposit and exploring for new deposits along the highly prospective Larocque Trend. Targets on this corridor were identified through a comprehensive integration of drill hole geology, geochemistry, alteration mineralogy, and geophysical data, including electromagnetic, DC resistivity, and ANT surveys. The approach builds on the understanding that Athabasca uranium deposits often consist of multiple zones distributed along trends several kilometres in length, suggesting the potential for additional discoveries beyond the Hurricane deposit. Drilling in the easternmost target areas of the Larocque East project will also enhance our understanding of favourable structural trends extending onto the Turnor Lake project to the east, where our joint venture partner, Purepoint Uranium, is advancing plans for future drilling."



#### Figure 1 – Location of IsoEnergy's exploration projects in the eastern Athabasca Basin.

#### **Resource Expansion Targets at Hurricane**

Drilling will commence with testing resource expansion targets near the Hurricane deposit and between it and 2024 Target Area B (Figure 2). Review of 2024 and past drill results has highlighted gaps in drill hole patterns where nearby holes intersected indicative geochemistry and alteration along projected extensions of faults which control mineralization within the Hurricane resource.

Historical results on the south side of the Hurricane deposit are encouraging, with drill hole LE22-115A intersecting  $1\% U_3O_8$  over 2.0 m and LE21-101 intersecting  $0.6\% U_3O_8$  over 4.5 m, including a higher-grade interval of  $3.1\% U_3O_8$  over 0.5 m (see November 16, 2021, and July 15, 2022, press releases). These intersections are proximal to a fault that controls a southern high-grade lens in the resource, underscoring the structural influence on mineralization and opening the possibility to extend the existing lens or identify additional mineralized lenses along this southern fault outside of the existing resource footprint.

Holes from the east end of the Hurricane resource footprint and to the east end of ambient noise tomography ("ANT") target Area B drilled in 2024 have strong illite clay alteration and uranium partial ("Up") geochemical signatures, and structural disruption so additional holes are planned to test drilling gaps in this area that is along the eastward strike extension of the faults that control the main portion of the Hurricane deposit.

Finally, review of historical drill hole data reveals that the northern faults at Hurricane – intersected in holes drilled from the north to intersect the deposit at depth (e.g. LE19-15) - remain largely untested at the unconformity, presenting a compelling target which will be tested this winter.





### **Regional Targets on the Larocque Trend**

With addition of a second drill rig, drilling of greenfield targets are expected to proceed from west to east across the Larocque Trend, as drill trails are prepared. The Larocque Trend is an important regional structure that hosts the world-class Hurricane deposit and other notable high-grade occurrences including those on Cameco/Orano's Dawn Lake joint venture (Figure 3).

Figure 3 – Location of the Larocque Trend which hosts the high-grade Hurricane deposit and highgrade uranium occurrences on adjacent projects. IsoEnergy's winter 2025 drilling will be focussed on this trend east of the Hurricane deposit on the Larocque East project.





Three of the target areas (D, E, and F) defined in 2024 that will be prioritized are characterized by anomalous Up geochemistry, indicative clay species alteration mineralogy, and prospective structure projected from nearby holes within the Larocque Trend and within seismic low velocity zones defined by 2024 ANT surveys and resistivity lows outlined by past DC-resistivity surveys. A joint inversion of electromagnetic and DC resistivity data to develop improved resistivity mapping of alteration is in progress and will be used in refining drill targets. Planned drill holes will be focussed initially in areas D, E and F and plans will evolve depending on results as the program proceeds. Unconformity target depth shallows to the east and is at 175 m vertical depth in hole LE24-180 at Area E versus a 325 m at the Hurricane deposit.

Area D, corresponding to adjacent portions of areas D, I and J as defined by 2024 ANT surveys (see November 6, 2024, press release). The target area coincides with ANT low velocity and low DC-resistivity zones on the conductor corridor zone. Drill hole LE22-116 intersected 369 parts per million uranium partial ("ppm Up") in basal sandstone from 281.5 to 282.0 m and 2,750 ppm Up from 282.0 to 282.5 m in the basement (see July 15, 2022, press release). Similarly, drill hole LE24-177, completed during the summer of 2024, intersected up to 42.8 ppm Up in basal sandstone. This hole also encountered strong alteration features, including hydrothermal hematite and clay, along with significant sandstone structural characteristics.

Area E corresponds to an ANT velocity low roughly coincident with the hinge of an east-trending, moderately west-plunging fold at the east end of the property, where IsoEnergy's 2024 summer drilling following up on historic hole KER-17 intersected significant structures in all drill holes. Drill hole LE24-192 recorded up to 334 ppm Up over 0.5 m in sandstone and up to 1,110 ppm Up in the basement. Drill hole LE24-180 intersected up to 462 ppm Up in sandstone, while LE24-190 encountered strong clay alteration and structural features from 209 m to the unconformity at 268.6 m. Additionally, this hole recorded >1 ppm Up below 180 m in sandstone, with a maximum of 7.0 ppm Up from 265.1 to 265.6 m.

Area F, located in the northeast, is centered on the conductor corridor and aligns with roughly coincident ANT velocity low and resistivity anomalies. 2025 drilling in areas E and F will also help correlations between fertile trends on the Larocque East project and conductors on the Turnor Lake project to the east which is now part of a joint venture between IsoEnergy and Purepoint created in 2024 and on which Purepoint, as the exploration operator, is proposing exploration plans for 2025.



### Figure 4 – Location of winter 2025 target areas along the Larocque Trend east of the Hurricane deposit.

### **Developing Drill Targets on Additional Highly Ranked Projects**

Ground gravity surveys are planned on the East Rim and Evergreen projects (Figure 1) that cover multiple conductive and structural corridors on the southeast basin margin. Stepwise moving loop electromagnetic surveys are planned for the Hawk project (Figure 1) to further refine the interpretation of conductor plates (proxies for graphitic faults and rock units) that are used along with low seismic velocity zones mapped by ANT surveys (proxies for rock alteration) and existing drill hole geology and geochemistry information to identify drill targets on the Hawk project. The goal of these geophysical surveys is to advance targets on

these highly prospective early-stage projects to the drill-ready stage. Contractor selection is in progress and work permits are expected to be received in February 2025.

## Update on Plan of Arrangement with Anfield

IsoEnergy also wishes to provide an update in connection with the previously announced plan of arrangement with Anfield Energy Inc. ("Anfield") under the *Business Corporations Act* (British Columbia) (the "Arrangement"). While the outside date under the arrangement agreement has passed, IsoEnergy is continuing to consider the Arrangement and potential options and alternatives. IsoEnergy will update the market as soon as further information becomes available.

## **Qualified Person Statement**

The scientific and technical information contained in this news release was reviewed and approved by Dr. Dan Brisbin, P.Geo., IsoEnergy's Vice President, Exploration, who is a "Qualified Person" (as defined in NI 43-101 – *Standards of Disclosure for Mineral Projects*). All 'HK' and 'LE' series drill holes were completed by IsoEnergy, and geochemical analyses were completed for the Company by SRC Geoanalytical Laboratories ("**SRC**") in Saskatoon, Saskatchewan, which is independent of the Company. All other drill holes were completed by previous operators and geochemical assay data has been compiled from historical assessment reports or provided by the previous operator(s).

For additional information regarding the Company's Larocque East Project, including the current mineral resource estimate for IsoEnergy's Hurricane Deposit [and the quality assurance and quality control **("QA/QC")** procedures applied to the exploration work described in this news release, please see the Technical Report titled "Technical Report on the Larocque East Project, Northern Saskatchewan, Canada" dated August 4, 2022, on the Company's profile at <u>www.sedarplus.ca</u>.

# Quality Assurance and Quality Control (QA/QC)

Quality Assurance in uranium exploration benefits from the use of down-hole gamma probes and handheld scintillometers/spectrometers, as discrepancies between radioactivity levels and geochemistry can be readily identified.

IsoEnergy implemented its QA/QC program in 2019. CRMs are used to determine laboratory accuracy in the analysis of mineralized and unmineralized samples. Duplicate samples are used to determine analytical precision and repeatability. Blank samples are used to test for cross contamination during preparation and analysis stages. For each mineralized drill hole at least one certified reference material (CRM) blank, one CRM standard, and one duplicate sample (MDUP) is inserted in the MINZ sample series. One of two CRM standards is used: OREAS 124 (O124) if maximum grade is <1% eU<sub>3</sub>O<sub>8</sub> or BL-5 (BL5) if maximum grade is >1% eU<sub>3</sub>O<sub>8</sub>.

For unmineralized samples such as composite and spot samples, field insertions are made at the rate of 1% for blanks, 2% for duplicates and 1% CRMs. The following protocols are followed:

- Sample IDs ending in 00 will be certified blanks (BLA1).
- •Sample IDs ending in 25 and 75 will be duplicates (DUPL) of the preceding sample.
- Sample IDs ending in 50 will be CRM OREAS 120 (O120).

In addition to IsoEnergy's QA/QC program, SRC conducted an independent QA/QC program, and its laboratory repeats (REPT), non-radioactive laboratory standards (LSTD), and radioactive lab standards (BL2A, BL4A, BL5) were monitored and tracked by IsoEnergy staff.

No QA/QC samples are inserted for reflectance samples as analyses are semi-quantitative only.

### Assaying and Analytical Procedures

Composite and spot samples were shipped to SRC Geoanalytical Laboratories in Saskatoon for sample preparation and analysis. SRC is an independent laboratory with ISO/IEC 17025: 2005 accreditation for the relevant procedures.

The samples were then dried, crushed, and pulverized as part of the ICPMS Exploration Package (codes ICPMS1 and ICPMS2) plus boron (code Boron). Samples were analyzed for uranium content, a variety of pathfinder elements, rare earth elements, and whole rock constituents with the ICPMS Exploration Package (plus boron). The Exploration Package consists of three analyses using a combination of inductively coupled plasma - mass spectrometry, inductively coupled plasma-optical emission spectrometry ("ICP- OES"), and partial or total acid digestion of one aliquot of representative sample pulp per analysis. Total digestion is performed via a combination of hydrofluoric, nitric, and perchloric acids while partial digestion is completed via nitric and hydrochloric acids. In-house quality control performed by SRC consists of multiple instrumental and analytic checks using an in-house standard ASR316. Instrumental check protocols consist of two calibration blanks and two calibration standards. Analytical protocols require one blank, two QA/QC standards, and one replicate sample analysis.

Samples with radioactivity over 350 CPS measured by Radiation Solutions RS- 125 were also shipped to SRC. Sample preparation procedures are the same as for the ICPMS Exploration Package, samples were analyzed by ICP-OES only (Code ICP1) and for  $U_3O_8$  using hydrochloric and nitric acid digestion followed by ICP-OES finish, capable of detecting  $U_3O_8$  weight percent as low as 0.001%.

Selective samples to be analyzed for gold, and in some instances, platinum and palladium, by fire assay using aqua regia digestion with ICP-OES finish. Analytical protocols utilized replicate sample analysis; however, no in-house standards were used for these small batches. Boron analysis has a lower detection limit of 2 ppm and is completed via ICP-OES after the aliquot is fused in a mixture of sodium superoxide (NaO2) and NaCO3. SRC in-house quality control for boron analysis consists of a blank, QC standards and one replicate with each batch of samples.

## **Borehole Radiometric Probing Method**

All successfully completed 2024 drillholes were radiometrically logged using calibrated downhole Mount Sopris 2PGA-1000 probe which collects reading every 10 cm along the length of the drillhole. The 2PGAprobe was sourced from Alpha Nuclear and was calibrated for the summer 2024 program by IsoEnergy geologists at Saskatchewan Research Council facility in Saskatoon in May 2024. The total count gamma readings using the 2PGA-1000 probe may not be directly or uniformly related to uranium grades of the interval measured and are only a preliminary indication of the presence of radioactive minerals.

### Sample Collection Methods

All drill core was systematically logged to record its geological and geotechnical attributes by IsoEnergy geologists and geological technicians. All drill core is systematically photographed and scanned for radioactivity with a handheld Radiation Solutions RS-125 spectrometer. IsoEnergy geologists marked sample intervals and sample types to be collected based on geological features in the core and on radioactivity measured with the RS-125 in counts per second (CPS). Geologists and geological technicians complete the on-site collection of several types of samples from drill cores.

Composite geochemistry samples consist of roughly one-centimetre-long chips of core collected every 1.5 m to geochemically characterize unmineralized sections of sandstone and basement. Composite sample

lengths are between five and ten m (typically 3 to 7 chips per sample). A minor revision to the sampling protocols introduced in 2024 is that rather than maintaining five metre sample lengths from 50 m above the unconformity to the unconformity, for five metres above and two metres below the unconformity composite sample intervals are now only 0.5 m long and the samples are composed of several chips of core in each interval. This is to provide better resolution of anomalous geochemistry along the unconformity, especially in greenfield exploration drill holes.

Split-core"spot" (i.e., representative) samples were collected through zones of significant but unmineralized alteration and/or structure. Spot sample length varies depending on the width of the feature of interest but are generally 0.5 m in length.

Split-core mineralization ("MINZ") samples are collected through zones of elevated radioactivity exceeding 350 CPS measured via RS-125 handheld spectrometer. MINZ samples are generally 0.5 m in length. One half of the core was collected for geochemical analysis while the remaining half is returned to the core box for storage on site. Intervals covered by MINZ samples are contiguous with and do not overlap intervals covered by composite samples.

Systematic short-wave infrared ("SWIR") reflectance ("REFL") samples were collected from approximately the middle of each composite sample for analysis of clays, micas, and a suite of other generally hydrous minerals which have exploration significance. Spot reflectance samples were collected where warranted (i.e., fracture coatings). Reflectance samples are not collected through mineralized zone.

For lithogeochemistry samples, sample tags with the sample number were placed in the sample bags before they are sealed and packed in plastic pails or steel drums for shipment to the Saskatchewan Research Council ("SRC") Geoanalytical Laboratories in Saskatoon, Saskatchewan. A second set of sample tags with the depth interval and sample number were stapled in the core box at the end of each sample interval. A third set of sample tag with the drill hole number, sample depth interval, and sample number were retained in the sample book for archiving. SWIR reflectance samples are tagged in a similar fashion as lithogeochemistry samples.

Geologists entered all geological, geotechnical and sample interval data into IsoEnergy's drill hole database during core logging.

## Sample Shipment and Security

Drill core was delivered from the drill to IsoEnergy's core handling facilities at the Larocque Lake camp thereafter. Individual core samples were collected at the core facilities by manual splitting. They were tagged, bagged, and then packaged in five-gallon plastic buckets or steel IP-2 drums for shipment to SRC labs in Saskatoon. Shipment to the laboratory was completed by IsoEnergy's expeditor, Little Rock Enterprises of La Ronge, Saskatchewan and by Points North Freight Forwarding Inc. of Points North Landing, Saskatchewan.

## About IsoEnergy Ltd.

IsoEnergy Ltd. (TSX: ISO) (OTCQX: ISENF) is a leading, globally diversified uranium company with substantial current and historical mineral resources in top uranium mining jurisdictions of Canada, the U.S., Australia, and Argentina at varying stages of development, providing near, medium, and long-term leverage to rising uranium prices. IsoEnergy is currently advancing its Larocque East Project in Canada's Athabasca Basin, which is home to the Hurricane deposit, boasting the world's highest grade Indicated uranium Mineral Resource.

IsoEnergy also holds a portfolio of permitted past-producing conventional uranium and vanadium mines in Utah with a toll milling arrangement in place with Energy Fuels Inc. These mines are currently on standby, ready for rapid restart as market conditions permit, positioning IsoEnergy as a near-term uranium producer.

### For More Information, Please Contact:

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### **Forward-Looking Information**

The information contained herein contains "forward-looking statements" within the meaning of the United States Private Securities Litigation Reform Act of 1995 and "forward-looking information" within the meaning of applicable Canadian securities legislation. "Forward-looking information" includes, but is not limited to, statements with respect to the activities, events or developments that the Company expects or anticipates will or may occur in the future, including, without limitation, planned exploration activities for 2025 and the anticipated results thereof; and statements with respect to the potential consummation of the Arrangement or other options and alternatives. Generally, but not always, forward-looking information and statements can be identified by the use of words such as "plans", "expects", "is expected", "budget", "scheduled", "estimates", "forecasts", "intends", "anticipates", or "believes" or the negative connotation thereof or variations of such words and phrases or state that certain actions, events or results "may", "could", "would", "might" or "will be taken", "occur" or "be achieved" or the negative connotation thereof.

Such forward-looking information and statements are based on numerous assumptions, including among others, that the results of planned exploration activities are as anticipated and will be reported when 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, that IsoEnergy and Anfield will complete the Arrangement in accordance with the terms contemplated or at all, that the conditions to closing of the Arrangement can or will be satisfied, that other options and alternatives to the Arrangement will be available to IsoEnergy. 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, delays in obtaining governmental or other approval, the inability of IsoEnergy and Anfield to complete the Arrangement; the occurrence of a material adverse change in the timing of and the terms and conditions upon which the Arrangement is completed, the inability to satisfy or waive all conditions to closing the Arrangement or any potential options and alternatives. Other factors which could materially affect such forward-looking information are described in the risk factors in IsoEnergy's most recent annual information form and other filings with the Canadian securities regulators which are available on IsoEnergy's profile on SEDAR+ at www.sedarplus.ca.

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.