

## **ERDENE PROVIDES KHUNDII GOLD DISTRICT EXPLORATION UPDATE COMMENCES 2022 DRILL PROGRAM**

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Press Release  
Halifax, Nova Scotia  
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Erdene Resource Development Corporation (TSX: ERD | MSE: ERDN) (“Erdene” or the “Company”) is pleased to announce commencement of the first phase of its 2022 exploration program at its Khundii Gold District (the “District”) in southwest Mongolia. The program will focus on expanding high-grade gold mineralization discovered in 2021 at the Ulaan and Dark Horse discoveries at the Bayan Khundii Gold Project (“Bayan Khundii”), confirming continuity at the Altan Nar Gold Project, and testing near-surface, high-grade oxide gold targets across the District. The first phase of the program will include approximately 10,000 metres of diamond and 3,000 metres of rotary air blast (RAB) drilling.

### **Quotes from the Company**

“The first phase of the 2022 Khundii exploration program will build upon last season’s tremendous exploration success,” said Peter Akerley, Erdene’s President and CEO. “In 2021, very high grade, near surface, oxide gold mineralization was discovered at Dark Horse, and exceptionally thick intervals of gold mineralization enveloping high-grade zones were intersected at the Ulaan Southeast discovery. These discoveries, within 2.5 kilometres of our shovel ready BK open-pit development, are part of the same intrusive related mineralizing event recognized as the Bayan Khundii (Rich Valley) Gold Discovery.”

“This year’s exploration program will follow up on these recent discoveries, and also return to our Altan Nar (Golden Sun) deposit, approximately 16 kilometres north of Bayan Khundii, where substantial expansion opportunities exist,” continued Mr. Akerley. “While these deposits display bulk-tonnage open-pit potential, what makes them unique, is the presence of exceptionally high-grade shallow gold mineralization. We are well on our way to confirming our two-million-ounce gold-equivalent resource target by year-end and are optimistic that our 2022 program will add resources beyond this target, further supporting our belief that the Khundii District hosts a multi-million ounce gold deposit.”

### **Khundii District 2022 Exploration Plans and Project Overview**

The Q2 2022 exploration program will focus on the expansion of the Bayan Khundii and Altan Nar gold deposits and also define new areas for detailed exploration in H2 2022. Multiple high priority targets remain untested by drilling and areas of known mineralization at Bayan Khundii’s Dark Horse and Ulaan prospects, as well as Altan Nar remain open

along strike and at depth. Furthermore, several targets remain untested for surface oxide related gold potential.

The first phase of the 2022 program includes 10,000 metres of diamond drilling, which commenced this week, and 3,000 metres of RAB drilling, which is scheduled to begin within the next month. The first phase will continue throughout Q2. The results of the first phase of the program will inform the design of subsequent phases.

Specifically, Q2 exploration drilling will target the following:

- Bayan Khundii – Ulaan:
  - Exploration of exceptionally high-grade gold zones (up to 156.5 g/t gold in UDH-21) in the northern portion of the discovery considered possible feeder zones along intersecting structures;
  - Expansion and definition drilling of thick, high-grade zones at Ulaan Southeast, where recent drilling returned up to 27 metres of 8.74 g/t gold (UDH-21) and 34 metres of 5.43 g/t gold (UDH-14);
  - Extension of the Ulaan Southeast gold mineralization at depth, including at least three extension holes where recent drilling ended in gold mineralization; and
  - Drill testing numerous high priority green-field targets characterized by coincident gold and geophysical anomalies within the southern and western portion of the Ulaan license.
- Bayan Khundii – Dark Horse:
  - Test for extensions of shallow, high-grade oxide targets at Dark Horse Mane, where values up to 195 g/t gold over 1 metre were intersected in 2021 (AAD-178);
  - Explore down-dip extensions of high-grade, near-surface oxide gold mineralization guided by geophysical targeting; and
  - Drill test for mineralization at depth and shallow targets within the larger Dark Horse prospect area.
- Shallow Oxide Gold Exploration (Bayan Khundii):
  - Following up on the success of the Dark Horse Mane exploration program, a RAB drilling program will test high priority targets across the Ulaan and greater Dark Horse areas for gold mineralization associated with a zone of oxidation and enrichment; and
  - The RAB drilling program will consist of 150 to 250 shallow (10-20 metres) drill holes over high priority targets area identified as part of a data compilation and assessment program carried out over the past few months.
- Altan Nar – Discovery Zone
  - Continuity of mineralization within the Altan Nar Discovery Zone ‘Gap’, where the most recent drilling, reported in Q1 2020, intersected 45.7 g/t gold, 93.4 g/t silver,

1.54% lead and 3.40% zinc over 7 metres beginning at approximately 70 metres vertical depth (TND-135); and

- Near surface oxide related gold potential at surface within the Discovery Zone.
- Altan Nar – Union North
  - Follow-up high-grade gold zone to test for near surface oxide related enrichment of gold mineralization at surface.

## Projects Overview

The Khundii District is currently defined based on three gold and base metal systems related to shallow subduction Paleozoic intrusive events within a 40-kilometre by 20-kilometre area in the Trans Altai Terrane (formerly known as the Edren Terrane). Erdene's 2022 exploration program will focus on the two gold-dominant systems:

**Bayan Khundii (Rich Valley):** Low sulfidation epithermal gold deposits and prospects (BK Deposit, Dark Horse Mane, Ulaan and Altan Arrow) overprinted on a high temperature, intrusive related alteration zone. Located along a 12-kilometre trend the deposits are interpreted to be related to deep seated northeast trending structures along a regional dilation zone and strike slip fault system. Current Resources<sup>1</sup> for the BK gold deposit include 585,100 ounces of 2.19 g/t gold Measured and Indicated ("M&I")<sup>2</sup> and 35,900 ounces of Inferred resources at 2.18 g/t gold. Resources have not yet been established for the Dark Horse Mane, Ulaan or Altan Arrow discoveries at Bayan Khundii.

**Altan Nar (Golden Sun):** Intermediate sulfidation, carbonate base metal gold deposits and prospects located along a 5.6-kilometre long, geochemically anomalous alteration zone located within a regional north-northeast trending structural corridor. Numerous structural intersections have created zones of dilation providing the setting for the emplacement of broader zones of mineralization. Current mineral resources for Altan Nar includes an Indicated gold-only resource of 317,700 ounces at a grade of 2.0 g/t gold and an Inferred gold-only resource of 185,700 ounces at a grade of 1.7 g/t gold.

An overview of the recent Dark Horse Mane and Ulaan discoveries at Bayan Khundii are included below together with a summary of the Altan Nar Project.

### *Dark Horse Mane*

Dark Horse Mane is a 1.5-kilometre trend of alteration and gold mineralization discovered in 2021. Located 2.4 kilometres north of the BK deposit, this zone begins at surface, hosting supergene enriched gold zones including an exceptionally high-grade gold bearing zone in the southern portion with values up 123 g/t gold over 5 metres (AAD-178) and ranging in thickness from 20 to 60 metres vertical depth with locally deeper oxidation along fractures. The high-grade oxide body exhibits strong continuity along a north-south strike. Mineralization remains open along strike and at depth. Limited deeper drilling has intersected wide zones of gold mineralization (e.g., AAD-57, 48 metres of 1.18 g/t gold from 194 metres down hole) associated with epithermal veins, white mica alteration and sulfide mineralization and remaining open.

The Company conducted data compilation, interpretation and drill hole targeting for the broader Dark Horse prospect area in late 2021 and early 2022. This work focused on gold anomalism, identifying feeder structures, shallow oxide gold mineralization, and areas with similar characteristics to Dark Horse Mane, as well as the potential for deeper zones of gold mineralization. This work has defined numerous drill targets for testing in 2022.

### *Ulaan*

The Ulaan gold target is a blind top discovery identified in Q3 of 2021. The discovery is characterized by hundreds of metres of gold mineralization (up to 354 metres) over an area 200 metres by 250 metres. Gold mineralization begins approximately 80 metres from surface and remains open along strike to the west/northwest and at depth. Intervals include 152 metres of 1.7 g/t gold in UDH-22 (from 85 metres) and 77 metres of 3.2 g/t gold in UDH-21 (from 115 metres). Similar to the BK gold deposit, several hundred metres east, the mineralizing event is characterized by exceptionally high-grade quartz  $\pm$  hematite and adularia veins and stockwork zones enveloped by the same gold bearing, silicified, white-mica altered lapilli tuff sequence. Stockwork zones identified in the northern portion of the Ulaan discovery will be the target of the initial Q2 2022 drilling to better define the orientation and extent of these exceptionally high-grade zones where intervals of 5 metres of 20 g/t gold (UDH-14) to 1 metre of 156 g/t gold (UDH-21) have been returned within broad high grade zones including 27 metres of 8.74 g/t gold (UDH-21) and 34 metres of 5.43 g/t gold (UDH-14). In addition, the 2022 exploration program will extend a series of existing drill holes to test for continuity at depth, and expansion drilling at Ulaan Southeast.

The southern portion of the Ulaan license has areas of anomalous gold-in-soil over an area 3.5 kilometres by 1 kilometre. The underlying geology and alteration appears to be analogous to the gold mineralization at Ulaan Southeast and Bayan Khundii, namely tuffaceous units with white mica and silica alteration. A series of holes will be drilled to test high priority targets.

### *Altan Nar*

Altan Nar, located approximately 16 kilometres north of the BK deposit, is an intermediate sulphidation, carbonate-base metal gold (“CBMG”) deposit, that remains open at depth and along the known 5.6-kilometre trend of the system. CBMG deposits generally occur above porphyry intrusions in arc settings and may extend for more than 500 metres vertically.

The majority of the Indicated mineral resource at Altan Nar is located at the Discovery Zone (“DZ”) with the remaining portion located at Union North where the bulk of first phase of the 2022 exploration program will be dedicated to resource expansion and testing of the near surface oxide potential.

Drilling at the Discovery Zone will target expansion of the “Gap Zone”, the untested central area of the deposit where the most recent drill program (2019) identified a high-grade-gold mineralized horizon believed to represent an epithermal boiling zone. Results

included 45.7 g/t gold, 93.4 g/t silver, 1.54% lead and 3.40% zinc over 7 metres beginning at approximately 80 metres vertical depth, within 23 metres averaging 17 g/t gold, and are amongst the strongest intervals reported to date (TND-135). Step-out drilling will be directed towards expanding this zone. Portions of these high-grade intersections are locally outside or in areas of previously low-grade resource blocks and therefore would expand the DZ high-grade core. Additional drilling will test for supergene enriched gold zones near surface, continuity along strike and parallel structures to the DZ. The results of this drilling program are expected to impact the resource at Altan Nar positively.

At Union North, located 1.2 kilometres north of the Discovery Zone, previous surface rock chip sampling returned very high-grade gold mineralization including 20.25 g/t gold over 7 metres in trenching (ANT-14). Subsequent diamond drilling confirmed narrower zones a depth. With the increased understanding of supergene enrichment at Dark Horse Mane, the field team recently returned to the surface exposures and confirmed intense oxidation in the near surface under thin recent sediments. This area, as well as other targets along the 5.6 km Altan Nar mineralization trend, will be evaluated for supergene enrichment/oxide gold zones as part of the Q2 exploration program and include both diamond and RAB drilling.

Altan Nar received limited exploration over the past two years as the Company's exploration efforts have been focused on the Bayan Khundii, Dark Horse and Ulaan Southeast discoveries. Only a small portion of the Altan Nar license has been drill tested. Additionally, approximately 90% of the NI 43-101 Mineral Resource prepared by RPM Global in 2018 is within 150 metres of surface and primarily contained within two of the 18 targets with all zones open along strike and at depth.

### *Supergene Oxide Gold Targeting*

RAB drilling will test for shallow, oxide related supergene gold zones like those encountered at Dark Horse Mane in 2021 (intercepted up to 195 g/t gold over 1 metre), in areas masked by younger cover sediments within the Bayan Khundii, Ulaan and Altan Nar license areas. This program will consist of shallow (10-20 metres deep) RAB drill holes, which can be drilled more rapidly and at lower cost relative to diamond drilling. RAB drill targets have been identified across the greater Dark Horse prospect area, on both the Khundii and Ulaan licenses. The presence of gold-bearing oxide zones indicates that the level of erosion, hydrological and atmospheric conditions within the Khundii Gold District were conducive to deep oxidation and supergene enrichment gold mineralization. This presents opportunity for the discovery of additional near-surface, high-grade gold mineralization across the Khundii District.

### **Khundii Minerals District**

Erdene's deposits are in the Trans Altai Terrane, within the Central Asian Orogenic Belt, host to some of the world's largest gold and copper-gold deposits. The Company has been the leader in exploration in southwest Mongolia over the past decade and is responsible for the discovery of the Khundii Gold District comprised of multiple high-grade gold and base metal prospects, one of which is currently being developed, the 100%-

owned Bayan Khundii Gold Project, and another which is being considered for development, the 100%-owned Altan Nar Project. In 2021, the Company identified two new significant gold prospects, Dark Horse and Ulaan.

The Bayan Khundii Gold Resource<sup>1</sup> includes 585,100 ounces of 2.19 g/t gold Measured and Indicated (“M&I”)<sup>2</sup> and 35,900 ounces of Inferred resources at 2.18 g/t gold. Within the M&I resource, a Proven and Probable open-pit reserve totals 409,000 ounces at 3.7 g/t gold<sup>3</sup> (press release [here](#)), providing significant potential for reserves growth with the development of the remaining M&I and Inferred resources<sup>1</sup>.

In July 2020, Erdene announced the results of an independent Feasibility Study for the Bayan Khundii Gold Project ([press release here](#)). The Feasibility Study results include an after-tax Net Present Value at a 5% discount rate and a US\$1,400/oz gold price of US\$100 million and Internal Rate of Return (“IRR”) of 42%. The Feasibility Study envisions an open pit mine at Bayan Khundii, producing an average of 63,500 oz gold per year, for seven years, at a head grade of 3.71 g/t gold, utilizing a conventional carbon in pulp processing plant. Production is expected to commence in 2023 based on the current project schedule.

## About Erdene

Erdene Resource Development Corp. is a Canada-based resource company focused on the acquisition, exploration, and development of precious and base metals in underexplored and highly prospective Mongolia. The Company has interests in three mining licenses and two exploration licenses in Southwest Mongolia, where exploration success has led to the discovery and definition of the Khundii Gold District. Erdene Resource Development Corp. is listed on the Toronto and the Mongolian stock exchanges. Further information is available at [www.erdene.com](http://www.erdene.com). Important information may be disseminated exclusively via the website; investors should consult the site to access this information.

## Qualified Person and Sample Protocol

Peter Dalton, P.Geo. (Nova Scotia), Senior Geologist for Erdene, is the Qualified Person as that term is defined in National Instrument 43-101 and has reviewed and approved the technical information contained in this news release. All samples have been assayed at SGS Laboratory in Ulaanbaatar, Mongolia. In addition to internal checks by SGS Laboratory, the Company incorporates a QA/QC sample protocol utilizing prepared standards and blanks. All samples undergo standard fire assay analysis for gold and ICP-OES (Inductively Coupled Plasma Optical Emission Spectroscopy) analysis for 33

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<sup>1</sup> For details of the Mineral Resources see Erdene’s Q2/2021 results press release, dated August 16, 2021, and the Company’s Q2 2021 MD&A, available on the Company’s website or SEDAR.

<sup>2</sup> M&I: 232,700 ounces of 2.39 g/t gold Measured and 352,400 ounces of 2.08 g/t gold Indicated

<sup>3</sup> P&P: 165,000 ounces of 4.4 g/t gold Proven and 256,000 ounces of 3.4 g/t gold Probable; For details of the Mineral Reserves see Khundii Gold Project NI 43-101 Technical Report, Tetra Tech December 4, 2019 available on the Company’s website or SEDAR

additional elements. For samples that initially return a grade greater than 5 g/t gold, additional screen-metallic gold analysis is carried out which provides a weighted average gold grade from fire assay analysis of the entire +75 micron fraction and three 30-gram samples of the -75 micron fraction from a 500 gram sample.

Erdene's drill core sampling protocol consisted of collection of samples over 1 or 2 metre intervals (depending on the lithology and style of mineralization) over the entire length of the drill hole, excluding minor post-mineral lithologies and un-mineralized granitoids. Sample intervals were based on meterage, not geological controls, or mineralization. All drill core was cut in half with a diamond saw, with half of the core placed in sample bags and the remaining half securely retained in core boxes at Erdene's Bayan Khundii exploration camp. All samples were organized into batches of 30 including a commercially prepared standard, blank and either a field duplicate, consisting of two quarter-core intervals, or a laboratory duplicate. Sample batches were periodically shipped directly to SGS in Ulaanbaatar via Erdene's logistical contractor, Monrud Co. Ltd.

Reported intervals are apparent thicknesses, i.e. downhole widths. The current Ulaan drill holes are all dipping at 85 degrees and oriented to intersect SW dipping WNW trending gold bearing veins. Additional study is required to confirm true widths. Reported grades for intervals are weighted averages based on length of sampling intervals. No top cut has been applied; however, all intervals greater than 10 g/t gold and 100 g/t gold are reported individually for clarity

### **Forward-Looking Statements**

Certain information regarding Erdene contained herein may constitute forward-looking statements within the meaning of applicable securities laws. Forward-looking statements may include estimates, plans, expectations, opinions, forecasts, projections, guidance, or other statements that are not statements of fact. Although Erdene believes that the expectations reflected in such forward-looking statements are reasonable, it can give no assurance that such expectations will prove to have been correct. Erdene cautions that actual performance will be affected by a number of factors, most of which are beyond its control, and that future events and results may vary substantially from what Erdene currently foresees. Factors that could cause actual results to differ materially from those in forward-looking statements include the ability to obtain required third party approvals, market prices, exploitation, and exploration results, continued availability of capital and financing and general economic, market or business conditions. The forward-looking statements are expressly qualified in their entirety by this cautionary statement. The information contained herein is stated as of the current date and is subject to change after that date. The Company does not assume the obligation to revise or update these forward-looking statements, except as may be required under applicable securities laws.

**NO REGULATORY AUTHORITY HAS APPROVED OR DISAPPROVED THE CONTENTS OF THIS RELEASE**

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# KHUNDII GOLD DISTRICT Q2-2022 EXPLORATION GUIDE



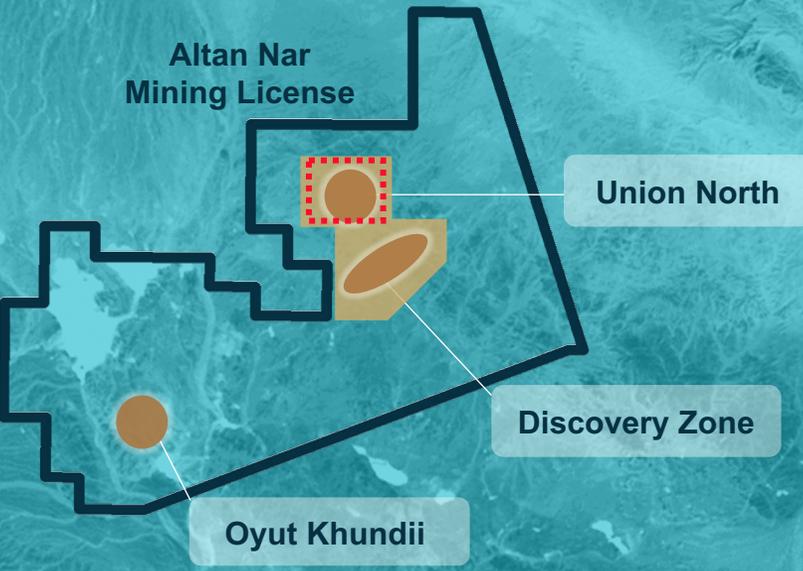
**Altan Nar** Multiple high priority drill targets to be tested outside of the defined Discovery Zone focusing on deposit expansion, surface oxide zone definition and new discoveries

**Discovery Zone** Drilling to target the currently untested “Gap Zone” within the core of the very high-grade Discovery Zone deposit

**Union North** Expansion drilling of near surface high grade oxide related gold where previous trenching returned over 20g/t gold over 7m

 Diamond Drill Program Targeting  
 RAB Drill Program Boundary

10 km



## Q2-2022 Expansion-Definition-Discovery

**Dark Horse Mane** Drilling to test down dip extension of very high-grade surface oxide gold zone at South Mane (5m of 123.5 g/t gold within 15m of 42.8 g/t). RAB drilling to test under cover for additional near surface oxide gold

**Ulaan Southeast** High priority expansion and definition drilling focusing on continuation of the thick, high-grade gold intersected in late 2021 highlighted by 27m of 8.74 g/t gold and 34m of 5.43 g/t gold

**South Ulaan** Scout drill program focusing on greenfield exploration targets consisting of surface gold anomalies hosted within altered volcanic rocks similar to Bayan Khundii and Ulaan SE

