

## ERDENE EXTENDS NEW DARK HORSE GOLD DISCOVERY WITH 500 METRE STEP-OUT; COMMENCES FOLLOW-UP EXPLORATION 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 provide final drill results from its 2020 Dark Horse gold prospect and to announce follow up exploration work on this exciting new prospect.

### Highlights<sup>1</sup>:

- Q4 2020 drilling at Dark Horse delineated a significant new gold discovery
  - Defined a four kilometre long structure, trending north-south (N-S), extending from the Bayan Khundii deposit in the south to the Altan Arrow northeast-trending structure in the north
- Dark Horse drill hole AAD-61 intersected a wide zone of gold mineralization
  - Returned 130 metres of 0.53 g/t gold, beginning 10 metres downhole, including 26 metres of 1.1 g/t gold, beginning 14 metres downhole
  - Drill hole was collared 700 metres north of previously reported high-grade intersection in AAD-58 and 500 metres north of AAD-57
- Significant gold mineralization has been intersected along the Dark Horse N-S structure over a 1.2 kilometre trend, including (from south to north):
  - AAD-58 returned 45 metres of 5.97 g/t gold, beginning 10 metres downhole, including 1 metre of 82.5 g/t gold within 8 metres of 27.1 g/t gold
  - AAD-57, located 180 metres north of AAD-58, returned 16 metres of 0.6 g/t gold beginning 52 metres downhole, and 48 metres of 1.2 g/t gold beginning 194 metres downhole, including 30 metres of 1.7 g/t gold
  - AAD-61, located 500 metres north of AAD-58, returned 130 metres of 0.53 g/t gold beginning 10 metres downhole
  - AAD-51, collared 1.2 kilometres north of AAD-58, returned 3 metres of 5.6 g/t gold beginning 138 metres downhole and 10 metres of 0.9 g/t gold starting 222 metres downhole

### Quotes from the Company:

“These final 2020 drill results firmly establish Dark Horse as the most significant zone of gold mineralization in Erdene’s Khundii Gold District since the discovery of the Bayan Khundii gold deposit,” said Peter Akerley, Erdene’s President and CEO. “These drill intersections, combined with the geophysical and geochemical signatures traced over a four kilometre trend, confirm the scale potential of the Dark Horse prospect.”

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<sup>1</sup> Reported intervals in this release are downhole apparent widths. Continued exploration is required to confirm anisotropy of mineralization and true thicknesses.

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“We have engaged a team of experts to improve our understanding of the discovery and design a fulsome exploration program to further define this exciting new prospect,” concluded Mr. Akerley. “We plan to launch a very active 2021 exploration campaign during Q1 and will provide updates when the program is finalized.”

### Dark Horse (Khar Mori) Discovery Overview (see plan maps and sections below)

The phase II Dark Horse drill program was completed in early December 2020, with 3,085 metres drilled in 14 holes. In total, Erdene drilled 4,660 metres in 25 holes (AAD-40 to 64) at Dark Horse in 2020. The phase II program built upon results from the first phase, including proximal pathfinder element (arsenic, molybdenum and antimony), drill intersections, magnetic-low anomalies and gold-in-soil anomalies associated with major structures, particularly structural intersections and interpreted zones of dilation.

This new discovery is located within a relatively underexplored region of the Dark Horse prospect, approximately one kilometre west of the high-grade interval reported previously, 30.6 g/t gold over 1 metre, in AAD-48 ([see October 26, 2020 release](#)). The results reported today are for hole AAD-61, located mid-way between previously reported ([see January 6, 2021 release](#)) holes AAD-51 and AAD-57, approximately 500 metres from each, with AAD-58 a further 180 metres south of AAD-57.

Hole AAD-61 returned the widest zone of gold mineralization to date at the Dark Horse prospect – 130 metres averaging 0.53 g/t gold, including 26 metres of 1.1 g/t gold, beginning 14 metres downhole. Gold mineralization in hole AAD-61 is nearly continuous over the entire 130 metre interval, with the highest reported grade, 3.5 g/t gold over 1 metre, measured at 126 metres downhole. Previously reported gold mineralization along the N-S Dark Horse structure includes: AAD-51 that returned multiple anomalous gold zones, including 3 metres of 5.6 g/t gold at 138 metres, and 10 metres of 0.9 g/t gold at 222 metres downhole depth, AAD-58 that returned 45 metres of 5.97 g/t gold beginning at 10 metres downhole, and AAD-57 that returned 16 metres of 0.6 g/t gold beginning at 52 metres downhole and 48 metres of 1.2 g/t gold beginning at 194 metres downhole. Highlights from these four holes are included in Table 1.

**Table 1 - Dark Horse N-S Structure Drilling Highlights (intervals averaging greater than 0.3 g/t gold)**

Hole	From	To	Interval <sup>(1)</sup>	g/t Au <sup>(2)</sup>
AAD-51	138	141	3	5.61
Incl	140	141	1	16.22
And	222	232	10	0.92
AAD-57	52	68	16	0.58
And	160	180	20	0.45
And	194	242	48	1.18
Incl	202	232	30	1.74
AAD-58	10	55	45	5.97
Incl	32	54	22	11.98
Incl	36	37	1	21.18
Incl <sup>(3)</sup>	41	49	8	27.07
Incl	43	44	1	82.53
AAD-61 <sup>(4)</sup>	10	140	130	0.53
Incl	14	40	26	1.06
Incl	92	96	4	1.25
Incl	120	129	9	1.07

<sup>1</sup> Reported intervals are apparent thicknesses (i.e. downhole widths). Insufficient drilling has been completed at Dark Horse to determine orientation of the mineralized zones and therefore true widths cannot be determined at this time. Exploration drill holes are typically oriented normal to (at a right angle to) the trend of potential mineralized targets and holes dips range from 45 to 75 degrees.

<sup>2</sup> Reported grades for intervals are weighted averages based on length of sampling intervals, typically 1 to 2 metres. No top cut has been applied; however, intervals greater than 10 g/t gold are reported separately for clarity.

<sup>3</sup> Seven of the eight 1-metre samples in this interval returned assays greater than 10 g/t gold, the eighth sample returned an assay of 9.5 g/t gold. The highest grade interval (43-44 metres) is reported separately.

<sup>4</sup> Newly reported results

Note: Exploration holes AAD-60, AAD-62, AAD-63 and AAD-64 intersected anomalous gold and/or zones anomalous in pathfinder elements (arsenic, molybdenum and antimony) but no significant intervals greater than 0.3 g/t gold.

AA-61 targeted a magnetic low anomaly associated with an epithermal comb quartz stockwork breccia and white mica alteration zone exposed in a dry drainage bed. Hole AAD-61 was collared in strongly oxidized and quartz-sericite-pyrite (“QSP”) altered dacite porphyry cut locally by sugary, open spaced quartz limonite veins and strong quartz stockwork zones. Moderate disseminated pyrite and pyrite veinlets increase downhole. The intensity of QSP alteration and veining varies throughout the hole to 124 metres depth where a strongly altered quartz stockwork vein zone hosts thick multi-stage sulfide mineralized black epithermal breccia to 141 metres depth followed by a moderately altered red dacite porphyry with minor sugary grey quartz and quartz-adularia veins. The N-S trending structure traced by a magnetic low signature, continues over approximately 4 kilometres where it connects with the Bayan Khundii deposit to the south. In addition to the N-S mineralized corridor the area west and south of AAD-61 is characterized by flat lying relief and limited outcrop exposure with multiple erosional windows exhibiting similar white mica alteration and coincident magnetic low signatures present over a 600 metre by 400 metre area.

Currently, only six holes have been drilled in the target area and the extent of gold mineralization remains largely untested. The area of exploration will be expanded beyond the north-south discovery corridor to other untested targets with similar geological signatures within the wider Dark Horse area. An evaluation and interpretation effort is currently underway, including:

- Members of the Company’s exploration team have returned to the field to carry out detailed logging of the discovery core and prepare for the upcoming exploration program;
- Dr. Jeffrey W. Hedenquist, an expert in epithermal and porphyry deposits, is reviewing results and will assist the Company in developing an understanding of the mineralized system and aid in the design of follow-up drilling;
- Wave Geophysics has been contracted to complete a detailed review and interpretation of the geophysical data in the new target area;
- Plus Minerals LLC will complete clay mineral (SWIR) analysis and interpretation from drill hole and surface samples within the target area which can provide insight into the character and depth of the mineralizing system; and
- The Company’s exploration team will compile recent results and interpretations into its 3-D model and analyze the full suite of geological data to further Erdene’s understanding of the controls on mineralization and aid in identifying additional drilling targets.

Once this work is complete, a follow-up drill program will be designed with drilling expected to commence shortly thereafter.

## Bayan Khundii Q4 2020 Drilling

In November 2020, Erdene completed five additional holes in and around the Bayan Khundii gold deposit. One hole was drilled in Midfield to follow-up on the potential extension of mineralization from Midfield SE, one hole was drilled at Striker South, to follow-up on previously identified mineralization outside the current resource boundary, and three condemnation holes were drilled in areas of planned mine infrastructure to confirm these areas are not associated with gold mineralization.

Hole BKD-346 was a shallow hole drilled in Midfield, designed to test the near surface extension of the mineralization identified at Midfield SE. This hole intersected mineralization from 27 metres (depth of the overlying Jurassic units) to the end of the hole at 62.1 metres, returning an average of 1.7 g/t gold over 35.1 metres. This included a higher-grade zone of 2.86 g/t gold over 18.1 metres from 44 to 62.1 metres (end of the hole).

Hole BKD-349 was drilled in South Striker and was a follow-up to hole BKD-268, located outside the area of the current mineral resource, that intersected a 100-metre-thick sequence of altered volcanic tuff at approximately 100-metres depth, with gold-bearing tuff units reporting up to a metre of 2.45 g/t gold. Similarly, BKD-349 intersected a 140-metre-thick sequence of altered tuffs at approximately 75 metres depth, with several zones of anomalous gold mineralization including 3.3 metres of 1.0 g/t gold.

**Table 2 - Bayan Khundii – Summary of Significant Drill Results**

Hole	From	To	Interval <sup>(1)</sup>	g/t Au <sup>(2)</sup>
BKD-346	27	62.1 <sup>(3)</sup>	35.1	1.70
Incl	44	62.1	18.1	2.86
Incl	57	59	2	8.77
BKD-339	74.7	78	3.3	0.98
And	118	122	4	0.49

<sup>1</sup> Reported intervals are apparent thicknesses, i.e. downhole widths. Drill holes are generally oriented to intersect SW dipping WNW trending gold veins normal to their orientation and therefore, in most cases, reported widths are close to true widths.

<sup>2</sup> Reported grades for intervals are weighted averages based on length of sampling intervals, typically 1 to 2 metres. No top cut has been applied; however, intervals greater than 10 g/t gold are reported separately for clarity.

<sup>3</sup> End of hole

No further drilling is planned in the immediate vicinity of the Bayan Khundii gold deposit at this time. Results to date are being incorporated into a mineral resource update, anticipated to be finalized in Q1 2021.

## Mongolia COVID-19 Update

With the confirmation of the first community transmission of COVID-19 in November 2020, the Government of Mongolia implemented a series of restrictions on the movement of people and delivery of goods and services. While restrictions have been eased in the majority of the country's territory, preventive measures prohibiting certain business and public activities remain in place in Ulaanbaatar, the country's capital. In mid-January 2021, the Company was able to re-mobilize, after pausing the field operations in early December, and commence field programs in accordance with the Government's guidelines for mining and mineral exploration activities. The Company's Mongolia-based personnel have continued to work safely in accordance with Company and national protocols.

The Company extends its appreciation to essential workers for their efforts to safeguard public health and help prevent the spread of COVID-19 in Mongolia and Canada.

## Khundii Gold District

Erdene's deposits are located in the Edren 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 gold/base metal prospects, two of which are being considered for development: the 100%-owned Bayan Khundii and Altan Nar projects. Together, these deposits comprise the Khundii Gold Project.

The Bayan Khundii Gold Resource<sup>1</sup> includes 521,000 ounces of 3.16 g/t gold Measured and Indicated ("M&I")<sup>2</sup> and 103,000 ounces of Inferred resources at 3.68 g/t gold. Within the M&I resource, a proven and probable open-pit reserve totals 409,000 ounces at 3.7 g/t (see the full press release [here](#)), providing significant potential growth of reserves with the development of the remaining M&I and Inferred resources<sup>2</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 early 2022 based on the current project schedule.

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.

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<sup>1</sup> For details of the Mineral Resources see Khundii Gold Project NI 43-101 Technical Report, Tetra Tech December 4, 2019 – SEDAR

<sup>2</sup> M&I: 171,000 ounces of 3.77 g/t gold Measured, and 349,700 ounces of 2.93 g/t gold Indicated

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## 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 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.

## 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

Three deposits, multiple greenfield discoveries, limited exploration

**Altan Nar Deposit** (Au, Ag, Zn, Pb)

Nomin Tal

Road to Shinejinst

Oyut Khundii

Proposed Haulroad

Altan Arrow

Khuvyn Khar

**Dark Horse Gold Prospect**

**Zuun Mod Deposit** (Cu, Mo)

Ulaan

Khundii North

**Bayan Khundii Deposit** (Au)

□ Exploration licenses

■ Mining licenses

● Au

● Cu

● Ag

● Mo

● Pb

● Zn



**KHUNDII GOLD PROSPECT MAP**



**Ulaan Prospect  
Pervasive and Intense  
QSP Alteration Zone**

AAD-61



AAD-57



AAD-58



**Dark Horse Gold Discovery**

**Bayan Khundii  
Low Sulphidation  
Epithermal Gold Deposit**

**Resources**

**521 Koz M&I @ 3.16 g/t Gold**

**103 Koz Inf. @ 3.68 g/t Gold**

**2km**



# ANOMALOUS GOLD + ARSENIC SOIL SIGNATURE MAP

Gold + Arsenic  
in Soil  
≥ 75<sup>th</sup>  
Percentile

**AAD-51**  
3m of 5.6 g/t &  
5m of 1.4 g/t Au

**AAD-61**  
130m of 0.53 g/t Au  
Incl. 26m of 1 g/t Au

**AAD-57**  
82m of 0.8 g/t Au incl.  
30m of 1.7 g/t Au

**AAD-58**  
45m of 6.0 g/t Au  
Incl. 8m of 27 g/t Au

300m

# HYDROTHERMAL ALTERATION MAP

Quartz-Sericite-  
Sulphide Alteration  
Advanced Argillic  
Alteration  
Residual (Vuggy)  
Silica Bodies

300m

# MAGNETITE DESTRUCTIVE CORRIDOR

**AAD-61 Section**

**AAD-57 Section**

**AAD-58 Section**

300m

# AAD-61 SECTION

## Projected Hydrothermal Alteration Concept and Downhole Gold

White Mica Alteration Surface Exposure

Au + As Soil Anomaly

AAD-61

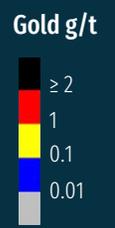
26m of 1.1 g/t Gold

4m of 1.3 g/t Gold

130m of 0.53 g/t Gold

9m of 1.1 g/t Gold

Interpolated QSP Alteration



100m

AAD-61: 125-129: 4m @ 1.5 g/t Gold; intensely QSP altered volcanic, cut by multi-stage black epithermal quartz breccia and stockwork



# AAD-57 SECTION

## Projected Hydrothermal Alteration Concept and Downhole Gold

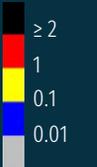
White Mica Alteration Surface Exposure

Au + As in Soil Anomaly

AAD-57

AAD-34

Gold g/t



16m of 0.58 g/t Gold

82m of 0.81 g/t Gold

30m of 1.7 g/t Gold

AAD-57: 202-206 metres: 4m @ 4.6 g/t Gold; intensely QSP altered volcanic, breccia, sugary quartz carbonate sulfide veins



Interpolated QSP Alteration

100m



### White Mica Alteration Zone and Residual Silica Body

### Au + As in Soil Anomaly

AAAD-58

Interpolated QSP Alteration

**45m of 6 g/t Gold  
Incl. 8m of 27 g/t Gold**

Anomalous copper (>300 ppm) over final 20m in intense stockwork pyrite veinlets to massive pyrite veins in QSP altered volcanic

100m

AAAD-58: 36-50 metres; 14m @ 18.2 g/t Gold; strongly QSP altered volcanic, cut by sugary crustiform qtz-lim-pyrite veins and intense iron oxide weathering along fault

	21.2
	1.22
	3.8
	7.4
	0.8
	36.2
	31.3
	82.5
	15.0
	12.7
	16.7
	9.5
	12.5
	4.5

Au 1m g/t

