

# ERDENE PROVIDES KHUNDII GOLD DISTRICT TECHNICAL PROGRAM UPDATE AND DETAILS 2020 EXPLORATION PLANS

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Erdene Resource Development Corporation (TSX:ERD | MSE:ERDN) ("Erdene" or the "Company") is pleased to provide an update on current technical programs and an overview of Q2 field programs on the Company's exploration prospects at its 100%-owned Khundii Gold Project licenses.

"As we are nearing delivery of the Bayan Khundii Gold Project's Bankable Feasibility Study ("BFS"), we are progressing construction and mining readiness activities, and refining our priority exploration targets," said Peter Akerley, Erdene's President and CEO. "Fieldwork commenced in early June, including detailed engineering work for the mineral waste facility and water supply system, drilling in the Bayan Khundii deposit area and surface exploration at our new Khar Mori ("Dark Horse") prospect. Results from these programs will support a seamless transition from the BFS, through project finance and onto construction, while further defining our pipeline of growth prospects."

"Exploration results in the past half-year reinforce the potential for growth in the Khundii Gold district," continued Mr. Akerley. "The expansion opportunities south of the Bayan Khundii open-pit reserve, the recent high-grade surface discovery at Dark Horse and the extension of the high-grade horizon within the Altan Nar Discovery Zone keep our pipeline full in this new gold district."

#### Mine Construction Readiness

Alongside the BFS, Erdene is undertaking mine construction readiness programs for the Bayan Khundii Gold Project (the "Project"). These programs are designed to accelerate the Project's first gold production in a phased, cost-efficient manner. Key construction readiness workstreams include:

- Establishing Project-specific controls and systems,
- Building the Project team,
- Securing permits and enhancing stakeholder engagement,
- Undertaking the detailed process plant design for construction,
- Advancing procurement and tender processes, and
- Developing logistics and support plans for the safe delivery of people, equipment, and supplies.

The preliminary Project team structure has been developed during the BFS, through the engagement of Mongolian and international talent with construction and operations experience. Following the delivery of the BFS, the Project team will finalize the critical permits, stakeholder engagement, procurement, and logistics required for early works, site preparation, and initial facilities construction, including the



permanent camp. The abovementioned efforts will fast-track construction beginning early in the 2021 construction season.

The current phase of fieldwork consists of on-site technical works, including condemnation drilling, data collection for detailed engineering and permitting of the mineral waste facility, geotechnical investigation to permit the water supply system, and the collection of building material samples for confirmatory testing.

#### Condemnation Drilling Bayan Khundii Gold Deposit:

A 25 hole, approximately 1,000-metre drill program commenced this week in near-surface areas of the Bayan Khundii deposit. This program will test for mineralization in zones otherwise classified as waste or low-grade stockpile material with the potential to add significant value at the earliest stages of mining.

During the final Pre-Feasibility resource drilling in 2019, a near-surface, high-grade zone was intersected in the southeast Midfield area with indications of continuity but with insufficient drilling density to confirm. At the southern perimeter of the Striker target area, very high-grade samples at surface and visual gold samples in trenches have not been fully replicated in drilling or reflected in the resource blocks defined. This close-spaced, shallow drill program, will further define these two areas to determine whether extensions of ore zones are present and factor into future mine plans prior to initial development.

#### Exploration Highlights & Plans [See attached figures for reference]

The Khundii Gold District provides a multitude of exploration and development opportunities beyond the current open-pit development at Bayan Khundii. These opportunities include the recent (2019) drilling successes within the Bayan Khundii extension zones, the new Dark Horse gold discovery and the identification of very high-grade gold associated with the boiling zone at Altan Nar, reported earlier in 2020. The following is a brief overview of the main target areas and planned programs.

#### Bayan Khundii – Extensions and Exploration Beyond Planned Pit

The Bayan Khundii Gold Resource<sup>1</sup> includes 521,000 ounces of 3.16 g/t gold Measured and Indicated ("M&I") 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 422,000 ounces at 3.7g/t (see the full press release <u>here</u>), providing significant potential growth of reserves with the development of the remaining M&I and Inferred resources. <sup>1</sup>

Several mineralized zones and exploration areas peripheral to the planned open-pit at Bayan Khundii host intervals of exceptionally high-grade (30 to 150 g/t gold intersections over 1 meter) gold-bearing veins. Limited drilling has been completed in these target areas, leaving the majority of these high-grade peripheral zones outside of the Bayan Khundii Reserves. Whereas some of these zones require infill drilling to define the extent and grade further, others highlight the prospective nature of the Bayan Khundii epithermal system to host extensions to the existing resource domains or new satellite deposit discoveries. Details on the key prospects at Bayan Khundii are further outlined below:

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



Striker West and Southern Extension: Located approximately 210 metres west of the planned Bayan Khundii open-pit, drilling completed in Q2 2019 confirmed and extended the Striker West target with the best intersection to date, 3 metres of 40 g/t gold at 136 metres vertical depth (BKD-265²). Results from this hole also broadened the mineralized domain at shallow depth and outside the defined resource boundary with a 16-metre interval of 1.1 g/t gold, including 5 meters of 2.7 g/t gold, beginning only 28 meters from surface. This area is open to the south, where BKD-266² was drilled in Q2 2019, approximately 250 metres west-southwest of the planned open-pit, and outside the currently defined resource boundary. This hole intersected a high-grade, one metre interval of 51.9 g/t gold at a depth of 264 metres within a broad zone of silica-illite and magnetite altered volcanic tuff, suggesting a down-dip continuation of high-grade gold mineralization from the currently defined Bayan Khundii pit. Further highlighting the prospect of resource extension to the south of Bayan Khundii, a step-out exploration hole (BKD-268²) drilled in Q3 2019 testing a buried geophysical anomaly, intersected a 100 metre thick sequence of altered volcanic tuff, similar to the Bayan Khundii deposit, at approximately 100-metres depth, with gold-bearing tuff units reporting up to a metre of 2.45 g/t gold. The 2019 drill programs provided new zones of expansion with potential for open-pit resources to the west and deeper resource opportunity moving to the south.

<u>East Bayan Khundii:</u> Located on the eastern flank of the planned open pit and below the proposed access ramp, drill hole BKD-118<sup>2</sup> intersected 3 metres of 55 g/t gold at approximately 150 metres vertical depth. Minimal drilling has been completed east of this area, leaving a broad swath of untested ground between the planned open pit and the mining license boundary.

Northeast Bayan Khundii: Anomalous gold (greater than 1 g/t gold) has been identified in thick (over 150 metres) sequences of silica-illite altered volcanic tuff up to 400 metres north and northeast along trend of the proposed open-pit. The prospect area north of the planned pit boundary remains largely untested with only widely spaced drilling.

Geological, geophysical and structural modelling continues at Bayan Khundii in preparation for the next phase of drilling.

### <u>Dark Horse (Khar Mori) – High Grade Gold Surface Vein System Untested by Drilling</u>

The Dark Horse prospect is located 3.5 kilometres northeast of the Bayan Khundii gold deposit on Erdene's 100% owned Khundii Mining License. The prospect was discovered in early Q4 2019 with the collection of a 32.9 g/t gold rock chip sample hosted by massive tourmaline cut by quartz stockwork veins. Follow-up surface exploration in late Q4 2019 samples multiple veins with grades greater than 5 g/t gold, including an 87.8 g/t gold rock chip sample hosted within comb quartz-adularia veins. The Q4 2019 program expanded the Dark Horse prospect westward to an approximately 1.5 by 2 kilometre area, connecting it with the adjacent Altan Arrow gold prospect to the northwest. Previous drilling along the subsidiary structures south of Altan Arrow (within 300 metres of the Dark Horse target area), have provided the highest grade intersections to date, including 24 g/t – 70 g/t gold over 2 metres within 75 metres of surface.

<sup>&</sup>lt;sup>2</sup> Reported intervals for these holes are apparent widths. Currently there is insufficient data and drill spacing to accurately define orientation of mineralization and subsequent true thicknesses.



During Q1 2020, Wave Geophysics completed an independent compilation, 3D modelling and interpretation of all geophysical datasets at Dark Horse. This comprehensive assessment provided a better understanding of geology, structure and supported evidence of a structural setting and expanding alteration zones at depth (magnetic low-magnetite destructive event) similar to the nearby Bayan Khundii deposit. In addition to the geophysical study, detailed soil and rock-chip geochemical surveys and mapping and trenching programs are now underway to determine the orientation and frequency of the Dark Horse gold mineralization in advance of future drilling of the prospect.

Although exploration is at an early stage, this is a priority discovery considering the very high-grade gold (up to 87 g/t gold) at surface, similarities to Bayan Khundii, greenfield exploration status and relative proximity to the Bayan Khundii mine development.

#### Altan Nar-Confirmation of Continuity of Very High Gold Grades in Q1 Drill Results Provides New Opportunity

At Altan Nar, approximately 16 km north of the Bayan Khundii gold deposit, a growing gold and polymetallic resource provides a significant opportunity for growth of the current high-grade resources. In late Q4 2019, the exploration team successfully tested a concept for a preferred gold mineralized horizon believed to represent an epithermal boiling zone in the Discovery Zone ("DZ"), one of 18 high-priority targets along the 5.6-kilometre mineralized trend on its 100% owned Altan Nar project. Results included 23 metres of 17 g/t gold, 44.7 g/t silver, 0.75 % lead and 1.47 % zinc within a black, sulphide-rich epithermal breccia (TND-135) which targeted a previously untested area of the DZ high-grade core. Additional drilling (TND-134 and TND-137) provided further support for the continuity of high grades within the target zone. This proof of concept opens up multiple areas for targeted testing along the Altan Nar trend. Only a small portion of the Altan Nar licence has been drill tested, and 90% of the NI 43-101 Mineral Resource prepared by RPM Global in 2018 is within 150 metres of surface and contained mainly within 2 of the 18 targets with all zones open along strike and at depth. The Q4 2019 results demonstrate continuity in size and grade within the highgrade DZ core, providing confidence in future expansion. Wave Geophysics has recently completed a compilation project for Altan Nar, and interpretation work is underway to develop the next round of drilling. The interpretation and recommendation phase of the desktop review of Altan Nar is currently being completed.

These three priority areas are set in a region of very high geologic prospectivity, limited exploration and are now being explored by a team with unparalleled knowledge and experience in the area. During Q3 2020, field program results and the current desktop studies will be delivered and plans for a significant drilling campaign finalized.

#### **COVID-19 Precautions:**

The Company has in place precautionary measures to protect against the spread of COVID-19. In the field, daily protocols are used to enhance hygiene and sanitation, including handwashing and more frequent cleaning. Revised daily briefing, induction and visitor reception procedures, including body temperature checks, have also been implemented. Isolation facilities and personal protective equipment have been prepared if circumstances should necessitate. Since late January, the Government of Mongolia has implemented a series of preventive measures in response to COVID-19, including limitations on public



gatherings, suspension of in-person classroom learning, and international border controls. As of June 8, 2020, Mongolia has experienced no local transmission of COVID-19, with the country's 194 confirmed COVID-19 cases all related to international travel, having been traced, quarantined, and, where required, treated.

#### 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.

In October of 2019, Erdene announced the results of an independent Technical Report for the Khundii Gold Project (press release here), which included a Pre-feasibility Study ("PFS") for the Bayan Khundii deposit and an updated Preliminary Economic Assessment ("PEA") for the Altan Nar deposit. The PFS and the updated PEA results include an after-tax Net Present Value at a 5% discount rate and a US\$1,300/oz gold price of US\$97 million and US\$24 million, Internal Rate of Return ("IRR") of 42% and 90% for Bayan Khundii and Altan Nar deposits, respectively. The PFS envisions an open-pit mine at Bayan Khundii from Years 0-7, producing an average of 61,000 oz gold per year at a head grade of 3.73 g/t gold, and an open-pit operation at Altan Nar during Years 7-10, for an average annual production of 48,000 oz gold at an average head grade of 3.46 g/t gold, utilizing a conventional carbon in pulp processing plant at the Bayan Khundii mine. Erdene has secured a mining license for the Bayan Khundii deposit in August of 2019 and plans to start producing gold at Bayan Khundii in late 2021. The Altan Nar PEA is by nature, a preliminary economic study, based in part on Inferred Resources. Inferred Resources are considered too speculative geologically to have the economic considerations applied to them that would enable them to be categorized as mineral reserves, which is required for a pre-feasibility or feasibility study. Mineral resources that are not mineral reserves do not have demonstrated economic viability, and there is no certainty that the PEA will be realized.

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 three 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 <a href="https://www.erdene.com">www.erdene.com</a>. 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 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.

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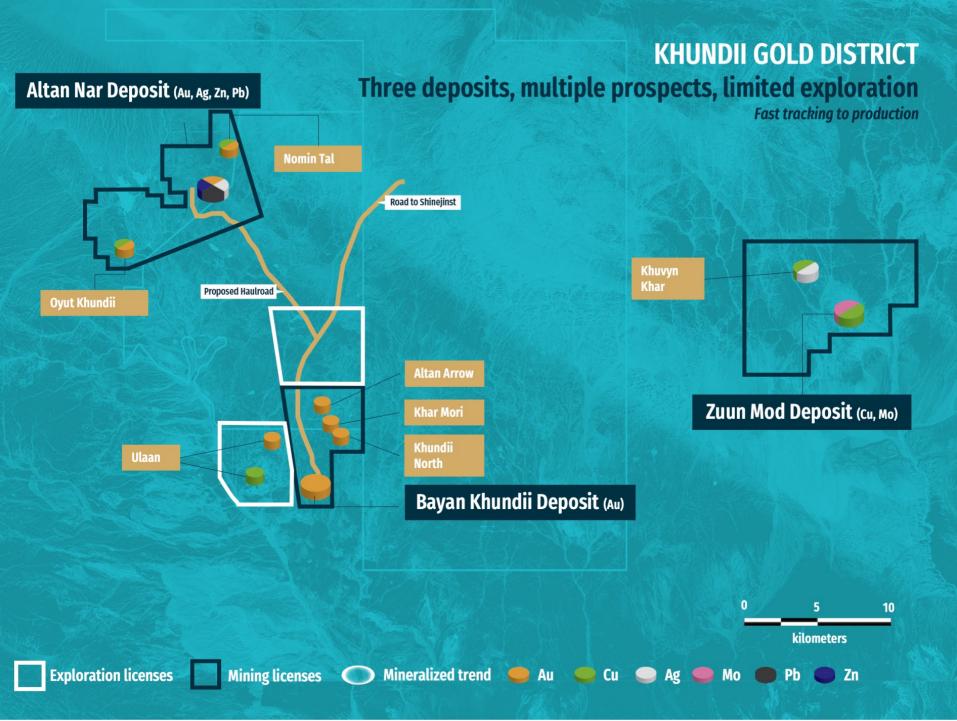
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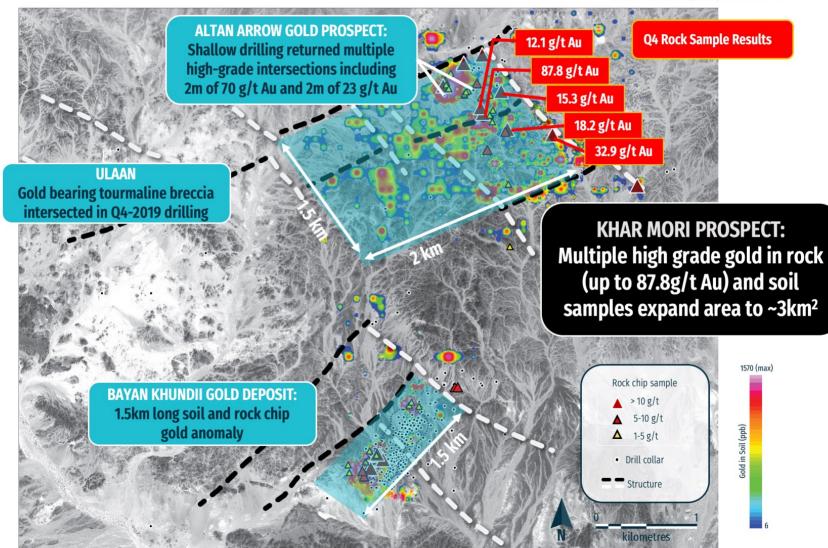
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### **BAYAN KHUNDII**

### **Multiple Prospects On License**

Fast tracking to production



# **BAYAN KHUNDII**

# **Areas for Expansion Adjacent to Open Pit**

Fast tracking to production

