

## **ERDENE INTERCEPTS 123.5 G/T GOLD OVER 5 METRES WITHIN 15 METRES OF 42.8 G/T GOLD AT DARK HORSE GOLD PROSPECT EXTENDS DISCOVERY WITH HIGHEST GRADE INTERSECTIONS TO DATE**

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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 an update on recent exploration at the Dark Horse prospect, located 2.4 kilometres north of its construction-ready Bayan Khundii Gold Project.

### **Highlights**

- Extended Dark Horse Mane mineralization 100 metres south
  - Prospect remains open to the north, south and at depth
- Intersected highest grade mineralization at Dark Horse to date, beginning near surface
  - AAD-176: 18 metres of 6.4 g/t gold beginning at surface
    - Includes 4 metres of 25.2 g/t gold
  - AAD-177: 23 metres of 11.4 g/t gold beginning 1 metre downhole
    - Includes 4 metres of 59.8 g/t gold within 8 metres of 32.2 g/t gold
  - AAD-178: 15 metres of 42.8 g/t gold beginning 11 metres downhole
    - Includes 3 metres of 160.4 g/t gold within 5 metres of 123.5 g/t gold
  - Two holes returned intervals over 100 g/t gold (up to 195 g/t gold)
- Highlights potential for near-surface, high-grade oxide gold mineralization across Khundii District
  - Multiple targets with similar signatures on Erdene’s Khundii, Ulaan and Altan Nar licenses

### **Quotes from the Company**

“Today’s results include the highest grade intersections at Dark Horse to date and confirm extension of this extremely high grade gold oxide zone,” said Peter Akerley, Erdene’s President and CEO. “This expanding, near-surface zone should enhance near term cash flow of our Bayan Khundii Gold Project and supports increased exploration for oxide gold targets along trend and throughout our Khundii Gold District.”

“Work is underway to assess the financial and technical impact of this mineralization on our adjacent, construction ready Bayan Khundii Gold Project,” continued Mr. Akerley. “Our 2022 exploration program is under development, with follow-up drilling planned in late Q1 to continue our efforts to demonstrate a multimillion-ounce gold district.”

### Summary of Drill Results

This most recent Dark Horse drill program, completed in December 2021, was designed to test near-surface, oxide gold mineralization south and north (along strike) of previous drilling along the Dark Horse Mane structure. The program consisted of 23 holes, and one hole-extension, totaling 1,586 metres. Average hole length was 66 metres, representing an average vertical depth of 47 metres.

The drilling program was successful in identifying and extending a zone of high-grade, near surface, gold mineralization at Dark Horse Mane south by approximately 100 metres, while also providing evidence of intense hydrothermal alteration with locally anomalous gold, antimony and arsenic in wider spaced drilling continuing a further 700 metres south. Results include the highest grade gold intersections to date, including multiple 1 metre samples, from two separate drill holes, exceeding 100 g/t gold (up to 195 g/t gold). Continuity of near-surface, oxide gold mineralization has been defined over a strike length of approximately 600 metres in the south.

Drilling in Dark Horse Mane north was successful in intersecting a broad zone of clay alteration and extending low grade gold mineralization (15 metres of 0.64 g/t in AAD-186) at the southern extent of the zone. Narrower zones were returned in drilling at the northern end with the current strike length of approximately 500 metres for the gold-bearing oxide zone at Dark Horse Mane north.

Highlights from the most recent drill holes are provided below in Table 1, and a drill hole plan map and section are attached to this release.

**Table 1: Dark Horse Q4 2021 Drilling Highlights**

(Intervals averaging over 0.30 g/t gold)

Hole ID	From	To	Interval <sup>(1)</sup>	Au g/t
AAD-173	42	44	2	1.57
AAD-174	2	18	16	0.78
AAD-175	0.5	12	11.5	1.54
Incl	7	10	3	4.82
Incl	8	9	1	10.16
AAD-176	0	18	18	6.4
Incl	3	7	4 <sup>(2)</sup>	25.18
AAD-177	1	24	23	11.37
Incl	6	14	8	32.32
Incl	9	13	4 <sup>(3)</sup>	59.84
Incl	10	11	1	121.09

Hole ID	From	To	Interval <sup>(1)</sup>	Au g/t
AAD-178	11	26	15	42.84
Incl	13	18	5 <sup>(4)</sup>	123.47
Incl	14	17	3 <sup>(5)</sup>	160.41
AAD-179	29	38	9	0.53
And	48	51	3	1.15
And	55	58	3	1.11
AAD-183	0.4	5	4.6	0.82
And	10	14	4	0.32
AAD-184	6	7	1	0.93
And	10	15	5	0.33
AAD-185	0.5	6	5.5	0.87
AAD-186	33	48	15	0.64
AAD-188	44	45	1	0.38
And	59	62	3	0.38
AAD-190	16	20	4	0.38

1. Reported intervals in this release are downhole apparent widths. Continued exploration is required to confirm anisotropy of mineralization and true thicknesses
2. Includes four (4) 1-metre samples all greater than 10 g/t gold; range 13.14 to 59.66 g/t gold
3. Includes four (4) 1-metre samples all greater than 10 g/t gold; range 12.98 to 121.09 g/t gold
4. Includes five (5) 1-metre samples all greater than 10 g/t gold; range 39.44 to 194.61 g/t gold
5. Includes three (3) 1-metre samples all greater than 100 g/t gold; range 118.03 to 194.61 g/t gold

## Dark Horse Overview

Drilling to date has defined a 1.5-kilometre trend of alteration and gold mineralization within the Dark Horse Mane target area that remains open along strike to the north and south, and at depth.

Erdene discovered Dark Horse Mane, 2.4 kilometres north of the Bayan Khundii deposit, when initial drilling, reported in early 2021, returned 5.97 g/t gold over 45 metres, beginning 10 metres downhole, including 8 metres of 27.1 g/t gold (AAD-58). This discovery lies within the greater Dark Horse target area (38 square kilometres) characterized by elevated gold in soil anomalism with multiple surface rock-chip, trench and drill core samples assaying greater than 1 g/t gold (see Plan Map). Trace element anomalism, geophysical anomalies related to alteration and mineralization, structures interpreted to represent conduits for mineralizing fluids, and alteration signatures supporting an epithermal mineralization model all characterize the greater Dark Horse prospect area.

To date the Company has completed 21,673 metres of drilling in 190 holes ranging in vertical depths from 21 to 318 metres within the greater Dark Horse prospect portion of the Khundii mining license.

The Dark Horse Mane zone is associated with a north-south trending, linear structural corridor which intersects deep seated northeast trending transform faults, believed to be a conduit for primary mineralizing fluids. The N-S structure has been traced over 5

kilometres, from the southern portion of the Bayan Khundii deposit to the northern extension of Dark Horse. Gold mineralization is hosted within strongly altered tuffaceous and volcanoclastic rocks, cross-cut by quartz and quartz-hematite veins and stockwork zones. The Dark Horse Mane shallow oxide zone begins at surface, hosting supergene enriched gold zones with values up to 195 g/t over 1 metre 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. The presence of gold-bearing oxide zones indicates that the level of erosion, hydrological and atmospheric conditions within the Khundii-Ulaan alteration footprint are conducive to deep oxidation and supergene enrichment gold mineralization. This presents opportunity for the discovery of additional near-surface, high-grade gold mineralization across Khundii district.

The near surface oxide gold zones discovered at Dark Horse Mane are the result of oxidation of sulfide bearing epithermal veins and hydrothermal breccias within white mica altered host lithologies. Limited deeper drilling has shown that gold bearing epithermal veins, and associated white mica and sulfide alteration zones, have been traced up to 230 metres vertically and remain open at depth. The gold mineralization near surface at Dark Horse Mane is related to broader areas of structurally controlled alteration and mineralization believed to be connected to feeder structures, distributing gold bearing fluids over a wide area as these fluids approached the paleo surface. Evidence for these feeder structures includes a series of exposed residual quartz lithocaps, associated locally with increasing copper anomalism at depth interpreted to predate the gold mineralization. These lithocaps are distributed along dominant NE trending structures believed to represent transform faults and potentially feeder conduits from a magmatic porphyry source at depth. The high-grade gold bearing oxide zones reported today are located proximal to the residual quartz lithocaps and hosted within tuffaceous to porphyritic volcanoclastic units.

## Moving Forward

There are multiple highly prospective areas across the greater Dark Horse area, in the northern portion of Erdene's 2,309 hectare Khundii Mining license that remain untested. In addition, much of the drilling to date at Dark Horse Mane has concentrated on near-surface targets, and gold mineralization at Dark Horse Mane remains open at depth and along strike. The Company is carrying out a data compilation, interpretation and drill hole targeting exercise for the broader Dark Horse prospect area. This work will focus on gold anomalism, identifying feeder structures, shallow oxide gold mineralization, similar to Dark Horse Mane, and the potential for deeper zones of gold mineralization. The Company's current geological model suggests drilling to date at the Dark Horse prospect is potentially above the high-grade boiling zone of a typical epithermal gold deposit.

## Khundii Minerals District

Erdene's deposits are 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 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.

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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

## 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.

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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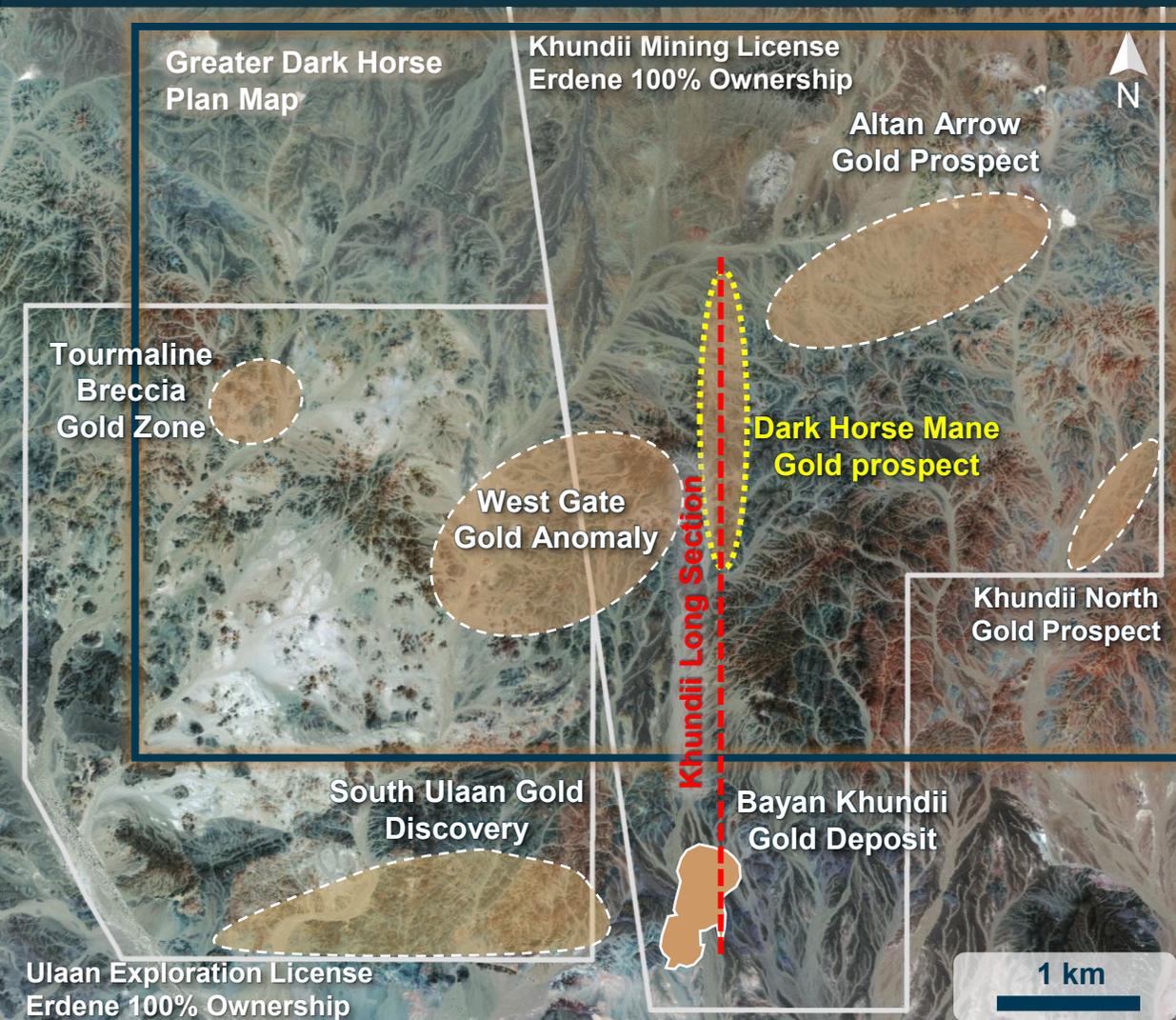
Facebook: <https://www.facebook.com/ErdeneResource>

LinkedIn: <https://www.linkedin.com/company/erdene-resource-development-corp/>

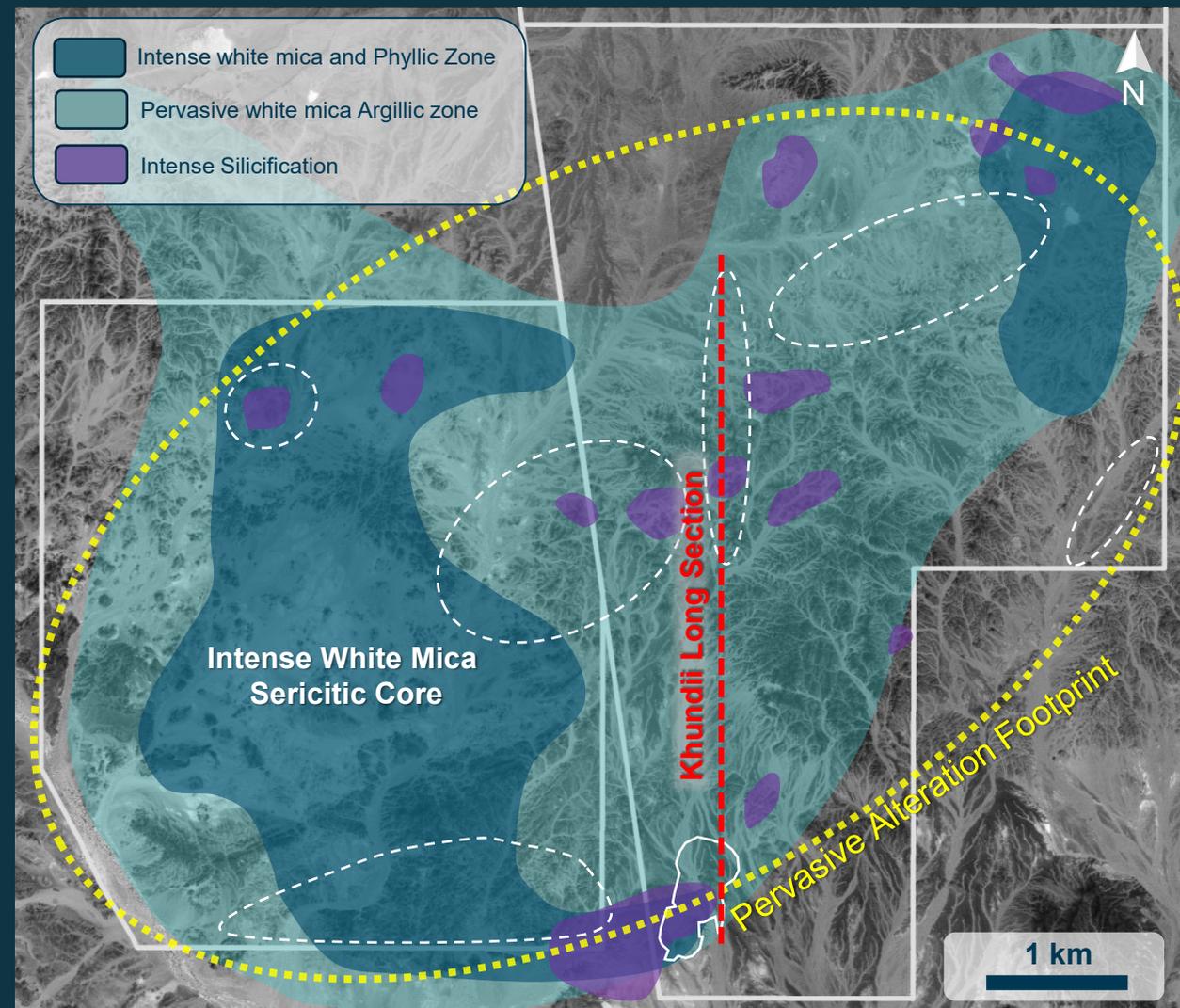
# DARK HORSE DRILLING CONFIRMS OXIDE GOLD AT SURFACE

## Khundii – Ulaan Licenses, Bayan Khundii Deposit and Prospect Location Map

### Khundii – Ulaan Active Discoveries and Prospects

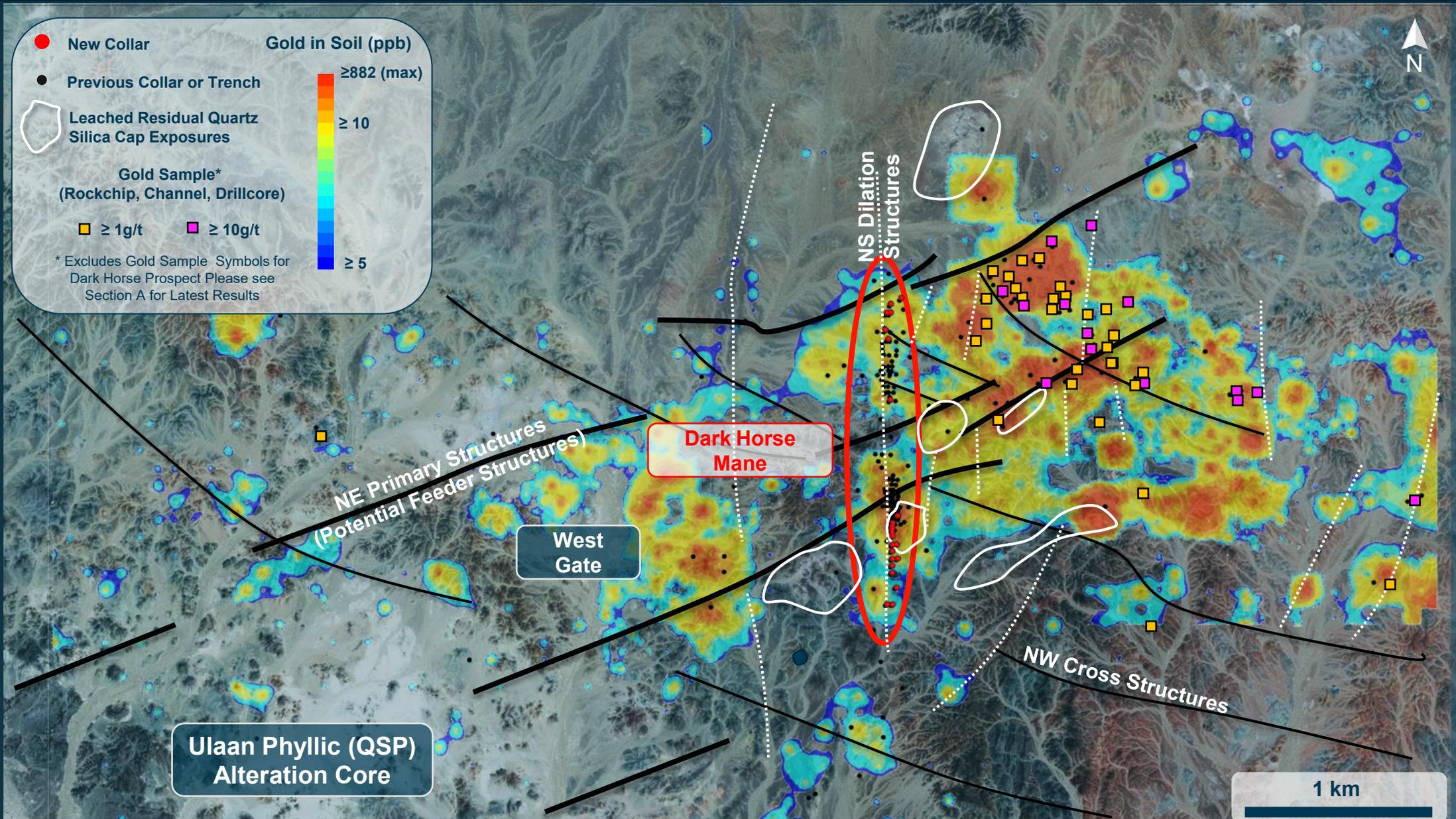


### Khundii – Ulaan Hydrothermal Alteration Footprint



# GREATER DARK HORSE PROSPECTS MAP

## High Potential for Further Discoveries



# KHUNDII LONG SECTION – 3D Magnetics

0.1 g/t Gold Grade Shell

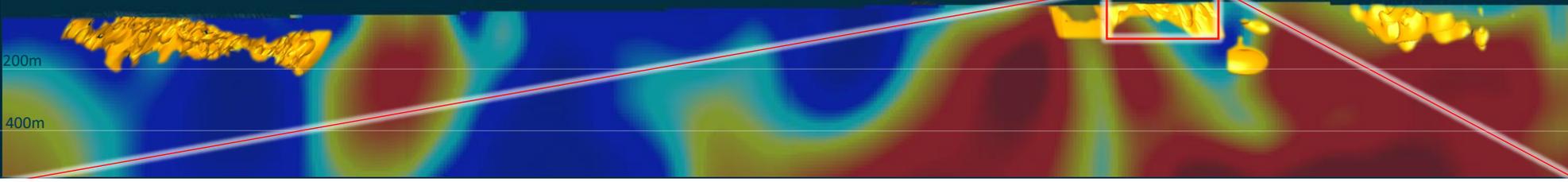
500m



Bayan Khundii Gold Deposit

Dark Horse Mane Gold Project

Section A



## DARK HORSE MANE (SOUTH) – SECTION A (Looking West)

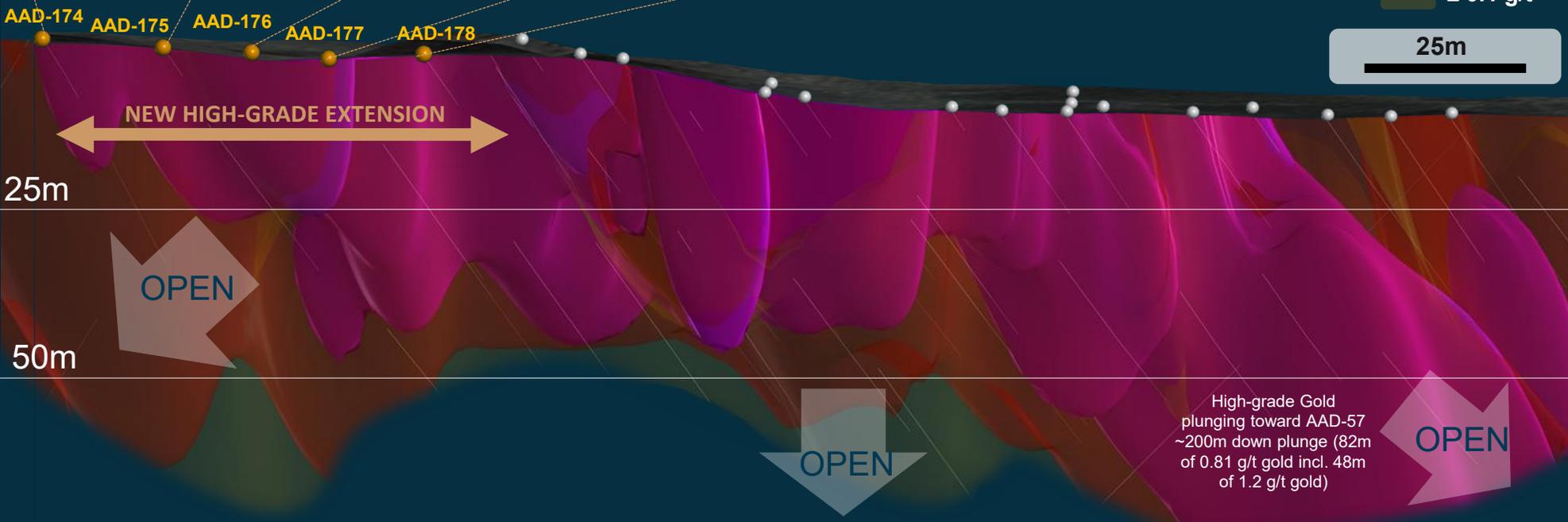
<b>AAID-174</b> 4m of 1.6 g/t Incl. 1m of 2.6 g/t	<b>AAID-175</b> 3m of 4.8 g/t Incl. 1m of 10.2 g/t	<b>AAID-176</b> 18m of 6.4 g/t Incl. 4m of 25.2 g/t	<b>AAID-177</b> 23m of 11.4 g/t Incl. 4m of 59.8 g/t	<b>AAID-178</b> 15m of 42.8 g/t Incl. 5m of 123.5 g/t
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- New Collar
- Previous Collar

Interpolated Gold Grade Shells

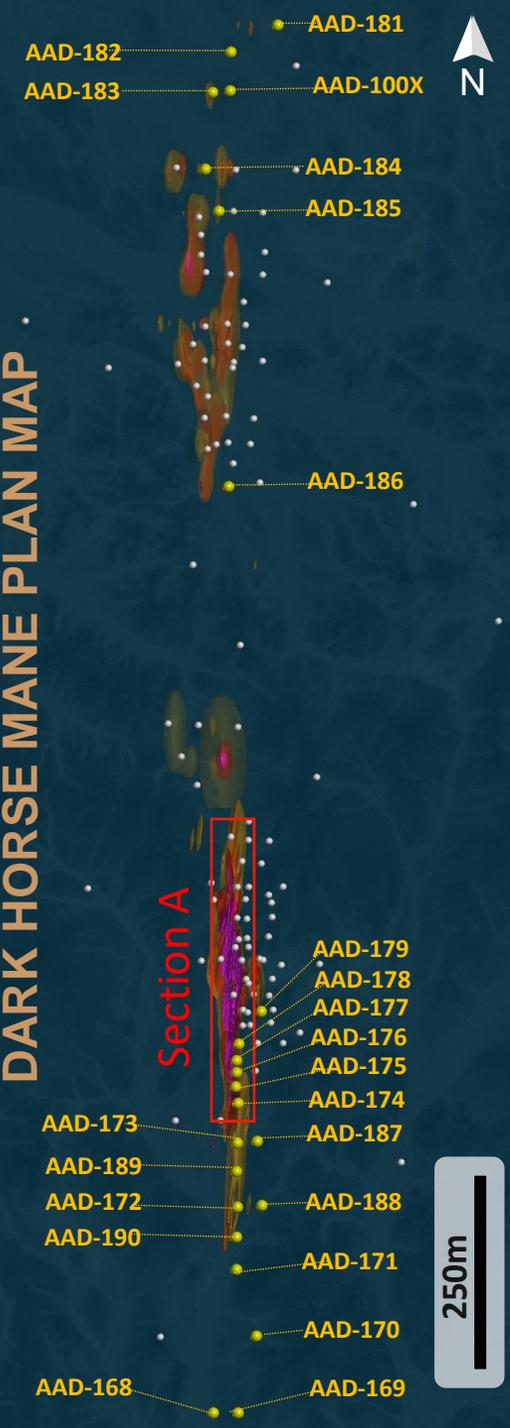
- ≥ 2.0 g/t
- ≥ 0.3 g/t
- ≥ 0.1 g/t

25m



High-grade Gold plunging toward AAD-57 ~200m down plunge (82m of 0.81 g/t gold incl. 48m of 1.2 g/t gold)

## DARK HORSE MANE PLAN MAP



250m