



ERDENE RESOURCE DEVELOPMENT CORP.

Erdene Initiates Exploration on New Copper-Gold Discovery *Provides Update on Mongolian Coal and Metals Exploration Programs*

For Immediate Release

Halifax, Nova Scotia – September 22, 2010 – Erdene Resource Development Corp. (“Erdene” or “Company”) (TSX:ERD) today provided an update on its ongoing exploration programs for coal and metals in Mongolia.

Highlights

- New Copper-Gold Discovery – Detailed Nomin Exploration Program Initiated
- Regional Coal Targets Being Tested - Zarman Coal Drilling Initiated
- Galshar Coal Royalty – Xanadu Acquires Galshar Project
- Zuun Mod Molybdenum-Copper Deposit - Scoping Study Level Work Underway
- Zuun Mod Exploration - Geophysical Program Commences

Nomin Copper-Gold Project

The Nomin Project is providing encouraging early stage copper-gold results and will be subject to more detailed exploration during the remainder of 2010. The Nomin prospect is a new discovery; however, previously undocumented ancient workings (shallow pits) have been found on the property. Samples from these pits returned an average of 2.2% copper and 1.7g/t gold from several samples taken over a strike length of 250 metres. The mineralization is hosted in Palaeozoic felsic volcanics and intrusives within the Southwest Gobi Island Arc Terrane. A sample from a second similar occurrence, 1.2 kilometres south-southwest of the main occurrence, returned assays of 1.6% copper and 1.15g/t gold. Magnetic and induced polarization (IP) dipole-dipole surveys are scheduled to commence in late September. Additional geological mapping and geochemical sampling will also be carried out over the area of these new copper-gold mineral occurrences in the next few months.

Erdene has been carrying out a two-year, detailed regional evaluation of a large area in southwestern Mongolia evaluating the potential for porphyry related copper-gold-molybdenum mineralization. The 2010 metals exploration program is focused on evaluating newly acquired exploration licenses, follow-up of anomalous results from the 2009 regional exploration program and field evaluation of the expanded 2010 regional porphyry evaluation program. Multiple new targets have been generated to date and are receiving further work.

Zarman Coal Project

Drilling of coal targets in the Zarman basin commenced September 14th with a planned eight-hole, 2,700 metre drill program designed to test an area 10 kilometres by 17 kilometres. The 2010 coal regional drilling program is focused on evaluating the potential of the Zarman basin in south-

western Mongolia to host significant coal deposits. Work to date has identified coal bearing lithologies, over a strike length of 60 kilometres along the northern edge of the Zarman basin. A magnetic survey covering approximately 600 square kilometres was recently finished while a 44 line-kilometre seismic survey is nearing completion.

A budget of US\$1.9 million is in place for 2010 coal exploration programs in Mongolia, which is fully funded by Xstrata Coal Canada Ltd. through the Erdene-Xstrata Coal Alliance. Xstrata Coal Canada Ltd. has the right to earn a 75% interest in any of Erdene's coal projects in Mongolia by fully funding the projects through to completion of a feasibility study.

Galshar Coal Project

In late 2008, Erdene optioned the Galshar property to a private Mongolian company for cash consideration which was paid over the first two years of the option agreement, and a royalty interest from any coal mined from the property. Earlier this year, the Mongolian company transferred control of the Galshar project to a subsidiary of Xanadu Mines Limited ("Xanadu") of Australia. Xanadu has recently raised Aus\$6.6 million from investors and announced that it plans to use part of these funds to drill the Galshar Coal Project to a JORC compliant resource estimate standard. Galshar hosts one main coal seam with an average thickness of 21 metres overlain by several thinner seams. There is potential for a large-scale open pit operation with a low stripping ratio. The resource is open to the north and east as well as potentially to the south. Xanadu is targeting 200 million tonnes of coal at Galshar, which is located 200 kilometres from the Chinese border and just 65 kilometres from an existing railway line. Power and unpaved road infrastructure is in place at Galshar.

Zuun Mod Development Activities

Following the official registration of the Zuun Mod Resource by the Mongolian Minerals Resource Council in July, the Company accelerated its efforts in regard to exploration and development of the Zuun Mod project. In September, the Company continued to advance the project with the initiation of hydro-geological studies which will include a geophysical survey and a drilling program designed to confirm water resources in support of mine development. In addition, the Company's independent technical consultants, Minarco-MineConsult of Australia, conducted pit optimization and scheduling studies on the Zuun Mod deposit. The company is now reviewing financial models and markets on which to base decisions regarding the advancement of the project to the pre-feasibility stage.

Zuun Mod is a porphyry molybdenum-copper deposit containing 215 million pounds ("Mlbs") of molybdenum in the Measured and Indicated ("M&I") category, grading 0.054% Mo, and a further 208Mlbs in the Inferred category grading 0.051% Mo, making it one of the largest undeveloped molybdenum-copper deposits in the Asia region. Within this envelope of 0.05% Mo mineralization, are higher grade zones averaging approximately 0.07% Mo totalling 44Mlbs of molybdenum in the M&I category and 29Mlbs of molybdenum in the Inferred category.

Erdene controls the Zuun Mod deposit through a single exploration license totalling 49,538 hectares, located in Bayankhongor Province in Mongolia, approximately 950 kilometers southwest of Ulaanbaatar and 215 kilometers from railhead on the Mongolia-China border at Ceke. The railhead is located 20 kilometers south of the Nariin Sukhait and Ovoot Tolgoi coal mines.

Zuun Mod Exploration

In early 2010, Erdene contracted Wave Geophysics, LLC to provide a model and interpretation of all geological, geochemical and geophysical data from the Zuun Mod project with a focus on identifying additional exploration targets in the vicinity of the Zuun Mod Mo-Cu deposit. This study was received during the second quarter. While the final results are still being evaluated, several new drill targets have been identified and preparations are underway to conduct a specialized geophysical induced polarization survey over the area to the southwest and along strike from the Zuun Mod deposit to test for possible extensions of mineralization in this area and to better define and prioritize drill targets. The planned survey will be carried out over 48 line-kilometres and will cover an area of approximately 21 square kilometres. This program is expected to start before the end of September.

Qualified Person

J.C. (Chris) Cowan, P.Eng. (Ontario) is a 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, blanks and duplicates.

About Erdene

Erdene Resource Development Corp. is a diversified resource company with multiple projects at various stages of development from exploration to production, all focused on high-growth commodities. Erdene has a current working capital position of approximately \$10.1 million, including that of its controlled subsidiary APM, with 89,230,877 common shares issued and outstanding and a fully diluted position of 93,034,877 common shares.

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 market prices, exploitation and exploration results, continued availability of capital and financing and general economic, market or business conditions. Discussion of the various factors that may affect future results is contained in Erdene's Annual Information Form dated March 29, 2010, which is available at www.sedar.com. 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 subject to change after that date and Erdene 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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