

PRESS RELEASE

DENISON ANNOUNCES POSITIVE METALLURGICAL TEST RESULTS FOR THE GRYPHON DEPOSIT

Toronto, ON – March 17, 2016 Denison Mines Corp. (“Denison” or the “Company”) (DML: TSX, DNN: NYSE MKT) is pleased to announce the receipt of positive metallurgical test results from the Gryphon deposit, which support high rates of uranium recovery and the amenability of processing Wheeler River mine production at Denison’s 22.5% owned McClean Lake mill.

“Having announced a significant increase in the estimated mineral resources at Wheeler River in late 2015, Denison is in the unique position of having a 60% interest in one of the largest and highest grade undeveloped uranium projects in the Athabasca Basin and an ownership interest in a state of the art uranium processing facility that is expected to have excess capacity in future years” said David Cates, President & CEO of Denison. “The preliminary testing results indicate Gryphon mine production will be suitable for processing at McClean Lake and will be incorporated into our upcoming PEA for Wheeler.”

The McClean Lake mill is one of the most technologically advanced uranium mills in operation and is uniquely able to safely process the exceptionally high grades of Athabasca Basin ores without dilution. The McClean Lake mill is owned by the McClean Lake Joint Venture (“MLJV”), a joint venture between AREVA Resources Canada Inc. (“AREVA”) (70%), Denison (22.5%) and OURD (Canada) Co. Ltd. (7.5%), and is operated by AREVA.

Positive Metallurgical Test Results from Gryphon

The Saskatchewan Research Council (“SRC”), under the guidance of Amec Foster Wheeler, completed a preliminary testing program on a composite sample of mineralization provided by Denison from the Gryphon deposit on the Wheeler River property. The objective of the tests carried out by SRC was to determine the preliminary leaching process, leach residue settling, raffinate composition, and purity of the U₃O₈ product, using test conditions that emulated the McClean Lake mill flowsheet. The 22.8 kilogram composite sample contained 3.36% U₃O₈ and was composed of drill cores from 10 separate drill holes spatially distributed throughout the Gryphon deposit resulting in 26 individual core assays. A comparison to the geological assay database indicated the composite sample is a fair representation of the Gryphon deposit on key parameters. Key highlights from the test work include:

- A reasonable grind size of P₁₀₀ = 300 µm achieved good uranium liberation;
- Leaching tests demonstrated from 95.4% to 98.8% of the uranium can be extracted in 8 hours and from 98.6% to 99.2% can be extracted in 12 hours;
- Reasonable reagent consumption levels in line with other Athabasca Basin ores;
- Solvent extraction was effective in selectively extracting and purifying the uranium; and
- No abnormal challenges are expected for effluent treatment based on raffinate composition.

Taken together, the results from the test samples show that a high purity U₃O₈ product can be produced, that meets all specifications from ASTM C967-13 “Standard Specifications for Uranium Ore Concentrate”. Amec Foster Wheeler has reviewed and approved the metallurgical sampling, analytical and test work results on behalf of Denison.

Wheeler River Property

The Wheeler River Property is host to both the Phoenix and Gryphon deposits. The Phoenix deposit is one of the highest grade undeveloped deposits in the world, estimated to include indicated mineral resources of 166,400 tonnes and 70.2 million pounds U₃O₈ at a grade of 19.1% U₃O₈. Additionally, the

Phoenix deposit is estimated to include an inferred mineral resources of 8,600 tonnes and 1.1 million pounds U_3O_8 at a grade of 5.8% U_3O_8 . The Gryphon deposit is hosted in basement rock, approximately three kilometres to the northwest of Phoenix, and is estimated to contain inferred mineral resources of 834,000 tonnes and 43.0 million pounds U_3O_8 at a grade of 2.3% U_3O_8 . The Wheeler River project is a joint venture between Denison (60%), Cameco Corp. (30%), and JCU (Canada) Exploration Company Limited (10%). Denison is the operator and is currently evaluating the economics of co-developing the Gryphon and Phoenix deposits through the completion of a Preliminary Economic Assessment (“PEA”).

Both the McClean Lake mill and the Wheeler River project are located in the infrastructure rich eastern portion of the Athabasca Basin in northern Saskatchewan. A provincial highway and power line run along the eastern edge of the Wheeler River property. This highway is used by other operations in the Athabasca Basin for transportation of uranium ores and similar highways run along the majority of the route between Wheeler River and the McClean Lake mill.

Qualified Person

The disclosure regarding the metallurgical test results contained in this news release was prepared and approved by Peter Longo, P. Eng, MBA, PMP, Denison’s Vice-President, Project Development, who is a Qualified Person in accordance with the requirements of NI 43-101.

The disclosure of a scientific or technical nature regarding the Phoenix and Gryphon deposits contained in this news release was prepared by Dale Verran, MSc, Pr.Sci.Nat., Denison’s Vice President, Exploration, who is a Qualified Person in accordance with the requirements of NI 43-101. For a description of the assay procedures and the quality assurance program and quality control measures applied by Denison, please see Denison’s Annual Information Form dated March 5, 2015 filed under the Company’s profile on SEDAR at www.sedar.com.

About Denison

Denison is a uranium exploration and development company with interests focused in the Athabasca Basin region of northern Saskatchewan. Including its 60% owned Wheeler River project, which hosts the high grade Phoenix and Gryphon uranium deposits, Denison’s exploration portfolio consists of numerous projects covering over 390,000 hectares in the eastern Athabasca Basin. Denison’s interests in Saskatchewan also include a 22.5% ownership interest in the McClean Lake joint venture, which includes several uranium deposits and the McClean Lake uranium mill, which is currently processing ore from the Cigar Lake mine under a toll milling agreement, plus a 25.17% interest in the Midwest deposit and a 61.55% interest in the J Zone deposit on the Waterbury Lake property. Both the Midwest and J Zone deposits are located within 20 kilometres of the McClean Lake mill. Internationally, Denison owns 100% of the Mutanga project in Zambia, 100% of the uranium/copper/silver Falea project in Mali, and a 90% interest in the Dome project in Namibia.

Denison is also engaged in mine decommissioning and environmental services through its Denison Environmental Services division and is the manager of Uranium Participation Corp., a publicly traded company which invests in uranium oxide and uranium hexafluoride.

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Cautionary Statement Regarding Forward-Looking Statements

Certain information contained in this press release constitutes “forward-looking information”, within the meaning of the United States Private Securities Litigation Reform Act of 1995 and similar Canadian legislation concerning the business, operations and financial performance and condition of Denison.

Generally, these forward-looking statements can be identified by the use of forward-looking terminology such as “plans”, “expects”, “budget”, “scheduled”, “estimates”, “forecasts”, “intends”, “anticipates”, or “believes”, or the negatives and / or variations of such words and phrases, or state that certain actions, events or results “may”, “could”, “would”, “might” or “will be taken”, “occur”, “be achieved” or “has the potential to”. In particular, this press release contains forward-looking information pertaining to the following: the estimates of Denison's mineral resources; exploration, development and expansion plans and objectives and anticipated results of current activities; the preparation the forward looking implications of the test results; the completion of a PEA; the processing ability and potential for future excess capacity at the McLean Lake mill; and expectations regarding ongoing joint ventures and Denison's share of the same. Statements relating to "mineral resources" are deemed to be forward-looking information, as they involve the implied assessment, based on certain estimates and assumptions that the mineral resources described can be profitably produced in the future.

Forward looking statements are based on the opinions and estimates of management as of the date such statements are made, and they are subject to known and unknown risks, uncertainties and other factors that may cause the actual results, level of activity, performance or achievements of Denison to be materially different from those expressed or implied by such forward-looking statements. Denison believes that the expectations reflected in this forward-looking information are reasonable but there can be no assurance that such statements will prove to be accurate and may differ materially from those anticipated in this forward looking information. For a discussion in respect of risks and other factors that could influence forward-looking events, please refer to the “Risk Factors” in Denison’s Management’s Discussion and Analysis for the year ended December 31, 2015 available under its profile at www.sedar.com and www.sec.gov/edgar.shtml. These factors are not, and should not be construed as being exhaustive.

Accordingly, readers should not place undue reliance on forward-looking statements. The forward-looking information contained in this press release is expressly qualified by this cautionary statement. Any forward-looking information and the assumptions made with respect thereto speaks only as of the date of this press release. Denison does not undertake any obligation to publicly update or revise any forward-looking information after the date of this press release to conform such information to actual results or to changes in its expectations except as otherwise required by applicable legislation.

Cautionary Note to United States Investors Concerning Estimates of Measured, Indicated and Inferred Mineral Resources: *This press release may use the terms “measured”, “indicated” and “inferred” mineral resources. United States investors are advised that while such terms are recognized and required by Canadian regulations, the United States Securities and Exchange Commission does not recognize them. “Inferred mineral resources” have a great amount of uncertainty as to their existence, and as to their economic and legal feasibility. It cannot be assumed that all or any part of an inferred mineral resource will ever be upgraded to a higher category. Under Canadian rules, estimates of inferred mineral resources may not form the basis of feasibility or other economic studies. **United States investors are cautioned not to assume that all or any part of measured or indicated mineral resources will ever be converted into mineral reserves. United States investors are also cautioned not to assume that all or any part of an inferred mineral resource exists, or is economically or legally mineable.***