



PRESS RELEASE

Denison Announces Significant Increase in Wheeler River Resource with 43 Million lb Initial Estimate for Gryphon

Toronto, ON – November 3, 2015... Denison Mines Corp. (TSX: DML) (NYSE MKT:DNN) (“Denison” or the “Company”) is pleased to announce a significant increase in the estimated mineral resources on Denison’s 60% owned Wheeler River property in Northern Saskatchewan. The initial resource estimate for the Gryphon Deposit adds inferred mineral resources of 43.0 million pounds U₃O₈ to a property that is already host to 70.2 million pounds U₃O₈ of indicated mineral resources at the Phoenix deposit. Together, Gryphon and Phoenix create a desirable combination of large resource size and high grades with the potential for co-development.

2015 Wheeler River Property Mineral Resource Estimate Summary

Deposit	Category	Tonnes	Grade (% U ₃ O ₈)	Million lbs U ₃ O ₈ (100% Basis)	Million lbs U ₃ O ₈ (Denison’s Share)
Gryphon	Inferred	834,000	2.3	43.0	25.8
Phoenix	Indicated	166,000	19.1	70.2	42.1
Phoenix	Inferred	9,000	5.8	1.1	0.7

Notes:

1. CIM Definitions were followed for classification of mineral resources.
2. Mineral resources for the Gryphon deposit are reported above a cut-off grade of 0.2% U₃O₈.
3. Mineral resources for the Phoenix deposit are reported above a cut-off grade of 0.8% U₃O₈.
4. The cut-off grade is based on internal conceptual studies and a price of US\$50 per lb U₃O₈.
5. Mineral resources for the Phoenix deposit were last estimated in 2014 to reflect the expansion of the high-grade zone. As no new drilling has been completed at Phoenix since that time, the mineral resource estimates for the Phoenix deposit remain current.

David Cates, President and CEO of Denison commented, *“We’re very pleased with the results at Wheeler River. With this initial mineral resource estimate for the Gryphon deposit and the expansion of the high-grade Phoenix deposit in 2014, the project has grown significantly in size and now represents one of the largest and highest grade undeveloped projects in the Athabasca Basin region. Our Saskatoon based exploration team deserves considerable recognition. Their innovative approach to exploration has led to the recent discovery of the Gryphon deposit and has created an entirely new area of highly prospective targets surrounding Gryphon along the K-North trend, which remains largely untested and will continue to be the focus of future exploration.”*

Initial Resource Estimate for Gryphon

Since its discovery in early 2014, Denison has completed 35 drill holes at Gryphon at a spacing of approximately 50 metres x 50 metres to define the deposit over an area measuring approximately 450 metres x 80 metres. The result of these efforts is an inferred mineral resource estimate of 43,037,000 lbs U₃O₈ (above a cutoff grade of 0.2% U₃O₈) based on 834,000 tonnes of mineralization at an average grade of 2.3% U₃O₈. Figure 1 illustrates the location of the Gryphon Deposit on the Wheeler River property and Figure 2 is a plan view of the grade x thickness contours at the Gryphon Deposit.

Wheeler River Project Highlights

- The basement hosted Gryphon deposit, which is expected to be well suited to conventional mining, complements the exceptionally high grade unconformity hosted mineralization at the Phoenix deposit – located only three kilometres away (see Figure 1);
- Together, Gryphon and Phoenix create a desirable combination of large resource size and high grades – Wheeler River now contains an indicated mineral resource of 70.2M lbs U_3O_8 at a grade of 19.1% U_3O_8 and inferred mineral resources totalling 44.1M lbs U_3O_8 at a combined grade of 2.4% U_3O_8 ;
- The project is located in the infrastructure rich eastern portion of the Athabasca Basin between the McArthur River mine and Key Lake mill complex – in close proximity to the provincial power grid, provincial highways, air transportation, and multiple uranium processing facilities, including the 22.5% Denison owned McClean Lake mill;
- Denison is the operator and holds a 60% interest in the project. Cameco Corporation holds a 30% interest and JCU (Canada) Exploration Company, Limited holds the remaining 10% interest.

Looking Ahead

- Given the close proximity of the Gryphon and Phoenix deposits, the Company has considered the concept of co-developing the two deposits as a single uranium development project and has initiated work on a Preliminary Economic Assessment (“PEA”) to validate the co-development potential;
- Exploration is expected to continue around the Gryphon deposit, where recent drilling has continued to return encouraging results that suggest the area around Gryphon and the entire K-North trend has the potential to host additional zones of significant basement and unconformity mineralization related to the Gryphon deposit.
- The Wheeler River property remains highly prospective beyond the K-North trend. For example, two areas named the O Zone and Q Central will also be explored in 2016 (see Figure 1). The O Zone is characterized by low grade uranium mineralization in one drill hole along a strong conductor associated with an 80 metre offset of the unconformity. This large area has been tested by only seven historic drill holes, six of which were completed too far into the hangingwall side of the structure and failed to intersect the fault. Drilling at Q Central in the past has returned significant uranium intersections, including 1.5% U_3O_8 over 0.5 metres in drill hole WR-204, associated with faulted graphitic pelites in contact with quartzite and warrants follow up.

Gryphon Deposit Geology and Mineralization

Mineralization at Gryphon occurs 720 metres below surface and is centered approximately 220 metres below the sub-Athabasca unconformity. At its highest point it is within 80 metres of the unconformity and it is 370 metres below the unconformity at its deepest point. The deposit consists of a set of parallel, stacked, elongate lenses that are broadly conformable with the basement geology and associated with a significant fault that separates a thin unit of quartzite from an overlying graphitic pelite. The lenses dip moderately to the southeast and plunge moderately to the northeast. The deposit is approximately 450 metres long in the plunge direction, and 80 metres wide across the plunge. Thickness is variable and is a function of the number of stacked lenses present, generally varying between 2 and 20 metres.

Gryphon belongs to a select group of large basement hosted uranium deposits on the east side of the Athabasca Basin that includes Cameco Corp.’s Eagle Point mine and Millennium deposit, and Rio Tinto’s Roughrider deposit.

Gryphon Deposit Estimation Methodology

The mineral resource estimate was completed by RPA Inc (“RPA”). For the Gryphon deposit, RPA used data collected from four surface diamond drilling campaigns completed during the last two years. Uranium grade data is comprised of chemical assays on half split drill core samples. All assays were completed by SRC Geoanalytical laboratories in Saskatoon, Saskatchewan using the Inductively Coupled Plasma – Optical Emission Spectrometry (ICP-OES) method. Quality control and quality assurance protocols for the chemical assays include the use of standard reference materials, blanks, check assays

and duplicate samples. Drill core recovery in the Gryphon deposit area is good, and therefore no down-hole gamma probe data was required for the estimate.

Geology, structure, and the size and shape of the mineralized zones have been interpreted using data from 35 diamond drill holes which resulted in three dimensional wireframe models that represent 0.05% U₃O₈ grade envelopes.

Based on 65 dry bulk density determinations, RPA developed a formula relating bulk density to uranium grade which was used to assign a density value to each assay. Bulk density values were used to weight grades during the resource estimation process and to convert volume to tonnage. Uranium grade multiplied by density (GxD) values and density (D) values were interpolated into blocks using an inverse distance squared (ID2) algorithm. Hard domain boundaries were employed at the wireframe edges, so that blocks within a given wireframe were only informed by grade data from that wireframe. Very high grade assays were capped at 30% U₃O₈ in order to reduce their influence. Block grade was derived from the interpolated GxD value divided by the interpolated D value for each block. Block tonnage was based on volume times the interpolated D value.

The mineral resource estimate for the Gryphon deposit was classified as inferred based on the drill hole spacing and apparent continuity of mineralization. The block models were validated by comparison of domain wireframe volumes with block volumes, visual comparison of composite grades with block grades, comparison of block grades with composite grades used to interpolate grades, and comparison with estimation by a different method.

Updated Wheeler River Technical Report

RPA, an independent technical consulting firm, was retained by Denison on behalf of the Wheeler River Joint Venture to prepare a mineral resource estimate for the Gryphon deposit and a supporting independent and updated Technical Report.

The updated Technical Report was authored by William E. Roscoe, Ph.D. P.Eng., Principal Geologist of RPA, and Mark Mathisen, C.P.G., Senior Geologist at RPA, who are both "Qualified Persons" in accordance with NI 43-101. The updated Technical Report will include both the Gryphon and Phoenix deposits and will be filed on SEDAR (www.sedar.com) within 45 days.

Qualified Person

The disclosure of a scientific or technical nature contained in this news release was prepared by Steve Blower P.Ge., Denison's Vice President, Exploration, who is a Qualified Person in accordance with the requirements of NI 43-101 and has been approved by William E. Roscoe, Ph.D. P.Eng. and Mark Mathisen, C.P.G. of RPA.

For a description of 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 conventional heap leach Mutanga project in Zambia, 100% of the uranium/copper/silver Falea project in Mali, a 90% interest in the Dome project in Namibia, and an 85% interest in the in-situ recovery projects held by the GSJV in Mongolia.

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" or "does not expect", "is expected", "budget", "scheduled", "estimates", "forecasts", "intends", "anticipates" or "does not anticipate", or "believes", 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".

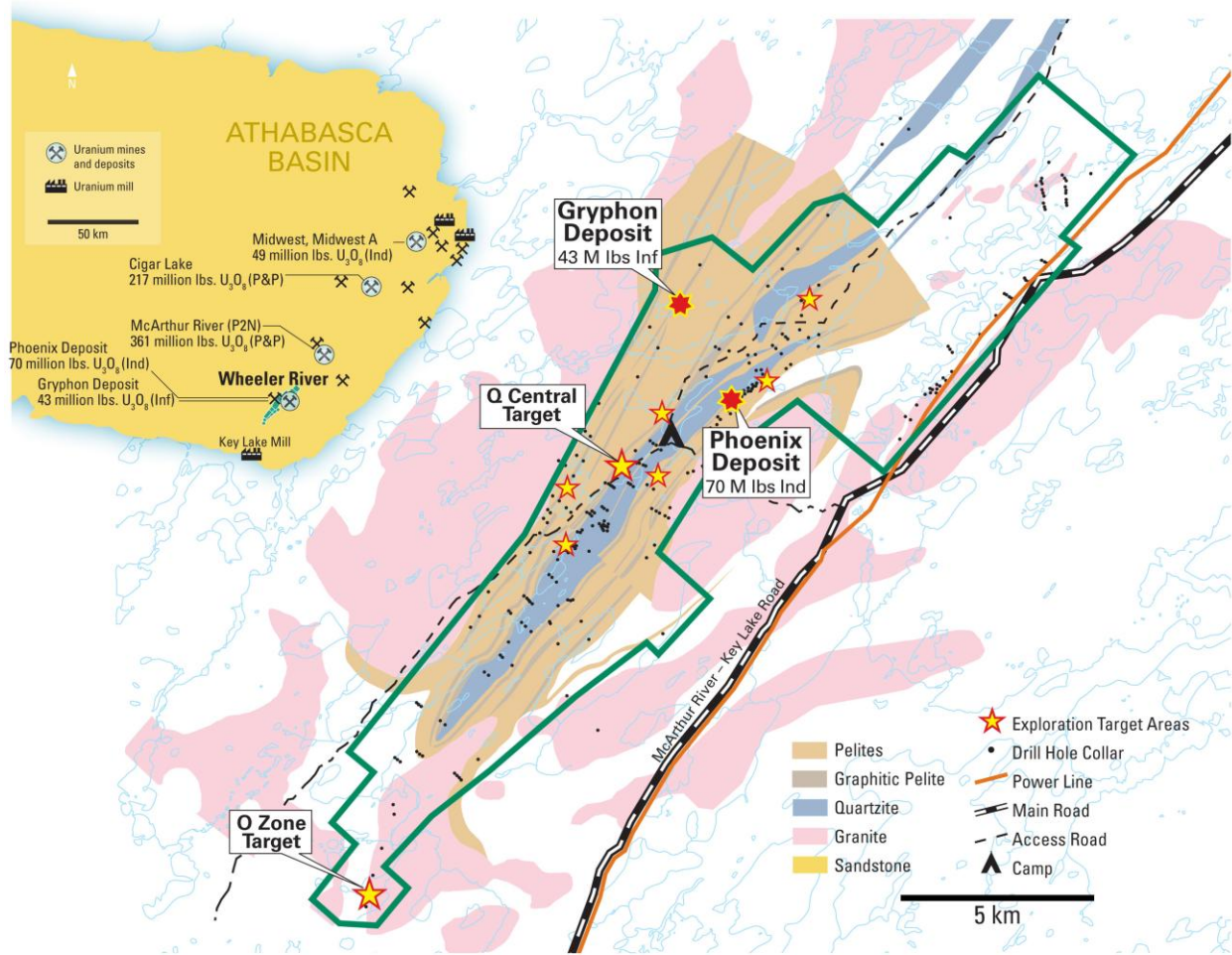
Forward looking statements are based on the opinions and estimates of management as of the date such statements are made, and they are subject to known and unknown risks, uncertainties and other factors that may cause the actual results, level of activity, performance or achievements of Denison to be 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 no assurance can be given that these expectations will prove to be correct and such forward-looking information included in this press release should not be unduly relied upon. This information speaks only as of the date of this press release. In particular, this press release may contain forward-looking information pertaining to the following: the likelihood of completing and benefits to be derived from corporate transactions; the estimates of Denison's mineral reserves and mineral resources; expectations regarding the toll milling of Cigar Lake ores; capital expenditure programs, estimated exploration and development expenditures and reclamation costs; expectations of market prices and costs; supply and demand for uranium (U_3O_8); possible impacts of litigation and regulatory actions on Denison; exploration, development and expansion plans and objectives; expectations regarding adding to its mineral reserves and resources through acquisitions and exploration; and receipt of regulatory approvals, permits and licences under governmental regulatory regimes.

There can be no assurance that such statements will prove to be accurate, as Denison's actual results and future events could differ materially from those anticipated in this forward-looking information as a result of the factors discussed under the heading "Risk Factors" in Denison's Annual Information Form dated March 5, 2015 available at www.sedar.com, and in its Form 40-F available at www.sec.gov/edgar.shtml.

Accordingly, readers should not place undue reliance on forward-looking statements. These factors are not, and should not be construed as being, exhaustive. Statements relating to "mineral reserves" or "mineral resources" are deemed to be forward-looking information, as they involve the implied assessment, based on certain estimates and assumptions that the mineral reserves and mineral resources described can be profitably produced in the future. The forward-looking information contained in this press release is expressly qualified by this cautionary statement. 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 Denison's 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.**

Wheeler River Target Areas
Figure 1



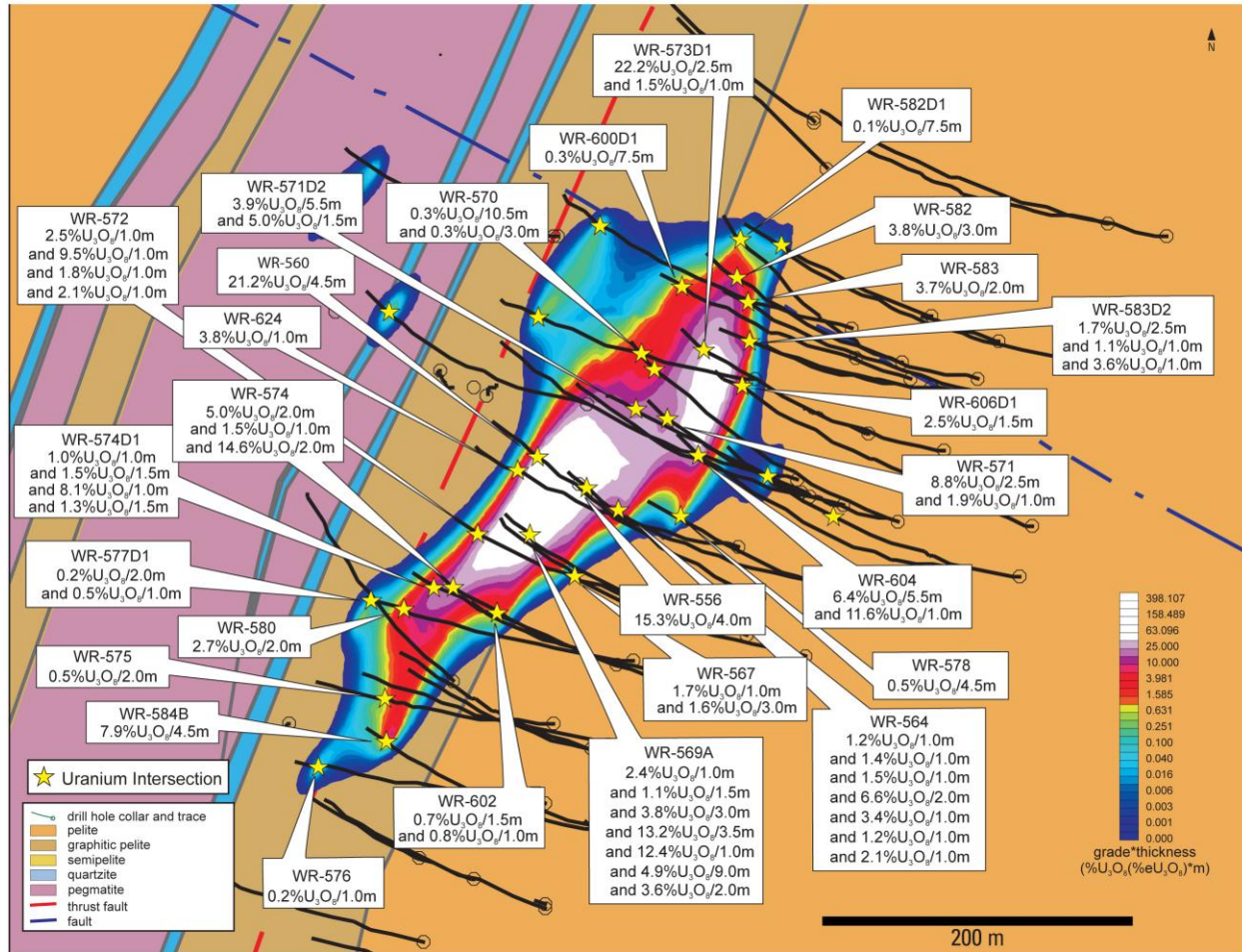
This figure to accompany news release dated Nov 3, 2015.

Gryphon Uranium Deposit Wheeler River Property

Denison 60% Cameco 30% JCU 10%



Figure 2



This figure to accompany news release dated Nov 3, 2015.