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PRESS RELEASE

# DENISON ANNOUNCES INITIATION OF PRE-FEASIBILITY STUDY AND RESULT OF FIRST INFILL DRILL HOLE AT WHEELER RIVER GRYPHON DEPOSIT

**Toronto, ON – July 19, 2016** Denison Mines Corp. ("Denison" or the "Company") (DML: TSX, DNN: NYSE MKT) is pleased to announce the initiation of a Pre-Feasibility Study ("PFS") for its 60% owned Wheeler River property, located in the infrastructure rich eastern portion of the Athabasca Basin region in northern Saskatchewan, and the results from its first infill drill hole at the basement-hosted Gryphon deposit. Drill hole WR-668 intersected 0.93% $eU_3O_8$ over 14.1 metres (including 2.1% $eU_3O_8$ over 3.7 metres and 1.4% $eU_3O_8$ over 1.3 metres) and 2.4% $eU_3O_8$ over 7.3 meters (including 3.7% $eU_3O_8$ over 4.5 metres), which reinforces the high grade results previously reported for the Gryphon deposit.

Work towards a PFS for Wheeler River was initiated earlier this year, following the completion of a successful Preliminary Economic Assessment ("PEA"), which evaluated the economic merit of co-developing the high grade Gryphon and Phoenix deposits. The results of the PEA were released on April 4, 2016 and were highlighted by a pre-tax IRR of 20.4%, based on a long term uranium price of US$44 per pound $U_3O_8$, and initial capital costs to Denison of CAD$336M.

The objective of the infill drilling program is to increase the level of confidence of the previously released inferred resources estimated for the Gryphon deposit to an indicated level - an important step in completing the PFS. Based on the drilling completed to the end of 2015, the Gryphon deposit is estimated to contain 43.0 million pounds $U_3O_8$ (above a cut-off grade of 0.2% $U_3O_8$) based on 834,000 tonnes of mineralization at an average grade of 2.3% $U_3O_8$. The PFS activities and related infill drilling program will continue throughout the summer and will run in parallel to a two drill exploration program, which is focused on resource expansion through the discovery of additional mineralization in the Gryphon D series lenses. Significant D series lenses were discovered during the winter 2016 exploration program and remain open in all directions. The D series lenses are not included in the current resource estimate for the Gryphon deposit, or the Wheeler River PEA.

Denison's President and CEO, David Cates, commented, *"The first infill drilling result at Gryphon reminds us of the high-grade nature of this basement hosted uranium deposit. Based on the PEA for the Wheeler River project, the Gryphon deposit is expected to be mined using low-cost conventional mining techniques in advance of mining the unconformity hosted Phoenix deposit. In addition to the PFS and related infill drilling program, we are focused on expanding the resource base at Gryphon, as we follow up on the discovery of additional Gryphon D series lenses to the north of the main Gryphon deposit. Taken together, our exploration and project development teams are planning to be very active on the Wheeler River project this summer."*

***Initiation of Pre-Feasibility Study Program***

In the second quarter of 2016, Denison initiated a work program to support the completion of a PFS for the Wheeler River project and to ultimately advance the project a further step towards production. Initial PFS activities, to date, have included:

- Launch of the Gryphon infill drilling program;
- Initiation of extensive geotechnical and hydrogeological data collection programs to support mine designs, water treatment designs and environmental assessments;
- Commencement of engineering evaluations for shaft sinking and mine designs;

- Retention of Pam Bennett as Environment Manager, responsible for the preparation of the Environmental Impact Assessment ("EIA") for the project. Pam comes to Denison with an M.Sc in Environmental Toxicology and is a registered Professional Biologist (P. Biol). Pam has over 15 years of international experience in the environmental sciences field, including experience with both Cameco Corp. and AREVA Resources Canada Inc. on EIAs for uranium projects in Saskatchewan;
- Initiation of environmental baseline data collection programs (archeological, terrestrial, aquatic) required to support project designs and environmental assessments; and
- Initiation of stakeholder consultations with local communities.

***Gryphon Infill Drilling Program***

The Gryphon uranium deposit is hosted in basement rock, centred approximately 220 metres below the sub-Athabasca unconformity, and is currently estimated to contain inferred resources of 43.0 million pounds $U_3O_8$ (above a cut-off grade of 0.2% $U_3O_8$) based on 834,000 tonnes of mineralization at an average grade of 2.3% $U_3O_8$. The resource estimate for the Gryphon deposit includes the A, B and C series lenses - a set of parallel, stacked, elongate mineralized lenses that are broadly conformable with the basement geology and dip moderately to the southeast and plunge moderately to the northeast. The inferred resource estimate was derived from a drill hole spacing of approximately 50 x 50 metres with drill holes oriented steeply toward the northwest – intersecting the geology and mineralized lenses at high angles to provide for an accurate evaluation of the true thickness of the mineralization. An infill drilling program has been designed to achieve a drill hole spacing across the A, B and C series lenses of approximately 25 x 25 metres. The infill drilling program has been designed with the assistance of Roscoe Postle Associates Inc. ("RPA"), an independent technical consulting firm who prepared the current resource estimate for the Gryphon deposit, and is expected to require approximately 40 drill holes, which will also be oriented steeply toward the northwest. To reduce drill time to mineralization as well as drilling costs, and improve drilling accuracy, a directional drilling method will be employed which involves drilling of a single parent hole from surface with multiple "daughter holes" drilled from part way down the parent hole. The daughter holes are steered to their respective targets using specialized drilling equipment.

Infill drilling planned for the summer 2016 work program is expected to complete approximately 10 of the estimated 40 infill drill holes required to upgrade the confidence of the A, B and C series lenses at Gryphon. With the Gryphon D series lenses expanding the mineralized footprint around the Gryphon deposit, commencing infill drilling in 2016 is expected to allow for a larger portion of the resources at or around Gryphon to be categorized as indicated and incorporated into the Wheeler River PFS in late 2017. The summer 2016 infill program will also provide the exploration team an opportunity to gain experience with the directional drilling method under local bedrock conditions in advance of the winter 2017 drilling season – where drilling is expected to be focused primarily on completion of the Gryphon infill drilling program.

Results from the first infill drill hole WR-668 included:

- 0.93% $eU_3O_8$ over 14.1 metres (including 2.1% $eU_3O_8$ over 3.7 metres and 1.4% $eU_3O_8$ over 1.3 metres) from 754.7 to 768.8 metres, and
- 2.4% $eU_3O_8$ over 7.3 meters (including 3.7% $eU_3O_8$ over 4.5 metres) from 772.6 to 779.9 metres

The results can be correlated with previous intersections of the A, B and C lenses in neighbouring holes and the high grades were consistent with previous results demonstrating good lens and grade continuity. As the drill hole was oriented steeply toward the northwest, consistent with previous Gryphon drill holes, and the basement mineralization is interpreted to dip moderately to the southeast, the true thickness of the mineralization is expected to be approximately 75% of the intersection lengths. The results are reported as radiometric equivalent $U_3O_8$ ("$eU_3O_8$") derived from a calibrated total gamma down-hole probe using a cut-off of 0.1% $eU_3O_8$, a minimum mineralization thickness of 1.0 metre and maximum waste of 2.0 metres. All mineralized intersections will be sampled for chemical $U_3O_8$ assay. A property location map of Wheeler River is provided in Figure 1 and the location of WR-668 is shown in Figure 2.

Further details regarding the Gryphon deposit and the current mineral resources estimated at Wheeler River are provided in the report titled "Technical Report on a Mineral Resource Estimate For The Wheeler

River Property, Eastern Athabasca Basin, Northern Saskatchewan, Canada.", dated Nov. 25, 2015, authored by William E. Roscoe Ph.D, P.Eng. and Mark B. Mathisen C.P.G of RPA. A copy of this report is available on Denison's website and under Denison's profile on SEDAR (www.sedar.com).

***Qualified Persons***

The disclosure of a scientific or technical nature 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 24, 2016 filed under the Company's profile on SEDAR at www.sedar.com.

The disclosure regarding the initiation of Pre-Feasibility Study Program contained in this news release was reviewed 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**.**

RPA, an independent technical consulting firm, was retained by Denison on behalf of the Wheeler River Joint Venture to assist in the design of the infill drilling program for the Gryphon deposit. The work was undertaken by Mark Mathisen, C.P.G., Senior Geologist, and peer reviewed by David Ross, M.Sc., P.Geo, Director – Resource Estimation who are both "Qualified Persons" in accordance with NI 43-101.

**About Wheeler River**

*The Wheeler River property is a joint venture between Denison (60% and operator), Cameco Corp. (30%), and JCU (Canada) Exploration Company Limited (10%), and is host to the high-grade Gryphon and Phoenix uranium deposits discovered by Denison in 2014 and 2008, respectively. The Gryphon deposit is hosted in basement rock and is currently estimated to contain inferred resources of 43.0 million pounds $U_3O_8$ (above a cut-off grade of 0.2% $U_3O_8$) based on 834,000 tonnes of mineralization at an average grade of 2.3% $U_3O_8$. The Phoenix unconformity deposit is located approximately 3 kilometres to the southeast of Gryphon and is estimated to include indicated resources of 70.2 million pounds $U_3O_8$ (above a cut-off grade of 0.8% $U_3O_8$) based on 166,000 tonnes of mineralization at an average grade of 19.1% $U_3O_8$, and is the highest grade undeveloped uranium deposit in the world.*

*On April 4th, 2016 Denison announced the results of a Preliminary Economic Assessment ("PEA") for the Wheeler River Project, which considers the potential economic merit of co-developing the high-grade Gryphon and Phoenix deposits as a single underground mining operation. The PEA returned a base case pre-tax Internal Rate of Return ("IRR") of 20.4% based on the current long term contract price of uranium (US$44.00 per pound $U_3O_8$), and Denison's share of estimated initial capital expenditures ("CAPEX") of CAD$336M (CAD$560M on 100% ownership basis). Exploration results from the winter and summer 2016 drilling program have not been incorporated into the resource estimate or the PEA. Additional infill drilling, required to improve the confidence in the existing mineral resources estimated for the Gryphon deposit, commenced in the summer of 2016 and is expected to be completed in 2017 as the Company advances the project towards the completion of a Pre-Feasibility study ("PFS"). The PEA is preliminary in nature and includes inferred mineral resources that are considered too speculative geologically to have the economic considerations applied to them to be categorized as mineral reserves, and there is no certainty that the preliminary economic assessment will be realized. Mineral resources are not mineral reserves and do not have demonstrated economic viability.*

**About Denison**

*Denison is a uranium development and exploration company focused in the infrastructure rich eastern portion of the Athabasca Basin region in northern Saskatchewan, Canada. Highlighted by its 60% owned Wheeler River development project, which hosts the high grade Gryphon and Phoenix uranium deposits, Denison's project portfolio covers over 350,000 hectares and includes a 22.5% interest in the McClean Lake uranium mill, which is permitted for annual production of up to 24 million pounds $U_3O_8$ and is currently processing ore from the Cigar Lake mine under a toll milling agreement. Denison's interests in the eastern Athabasca Basin also include a 61.55% interest in the J Zone deposit on the Waterbury Lake property, a 25.17% interest in the Midwest deposit, and a 22.5% interest in the McClean lake uranium deposits – all of which are located within 20 kilometres of the McClean Lake mill.*

*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.*

**For more information, please contact**


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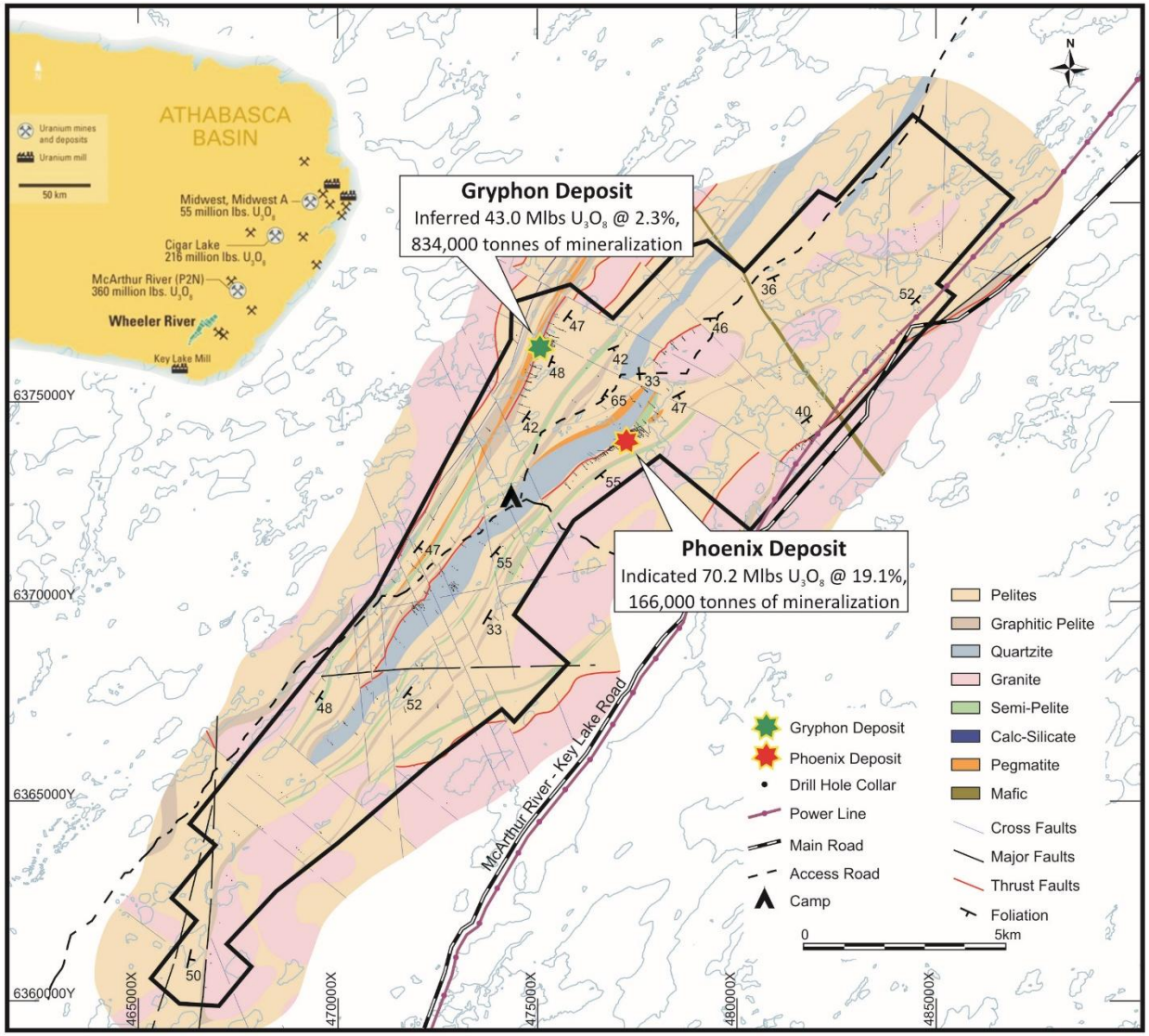
## Cautionary Statement Regarding Forward-Looking Statements

*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: exploration (including drilling) and evaluation activities, plans and objectives; potential mineralization of drill targets; and the estimates of Denison's mineral resources.*

*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 Annual Information Form dated March 24, 2016 available under its profile at* www.sedar.com *and in its Form 40-F available at* 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. 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.*




Further details regarding the current mineral resources estimated at Wheeler River are provided in the report titled "Technical Report on a Mineral Resource Estimate For The Wheeler River Property, Eastern Athabasca Basin, Northern Saskatchewan, Canada.", dated Nov. 25, 2015, authored by William E. Roscoe Ph.D, P.Eng. and Mark B. Mathisen C.P.G of RPA. A copy of this report is available on Denison's website and under Denison's profile on SEDAR (www.sedar.com).

**Figure 1: Wheeler River property location and basement geology**

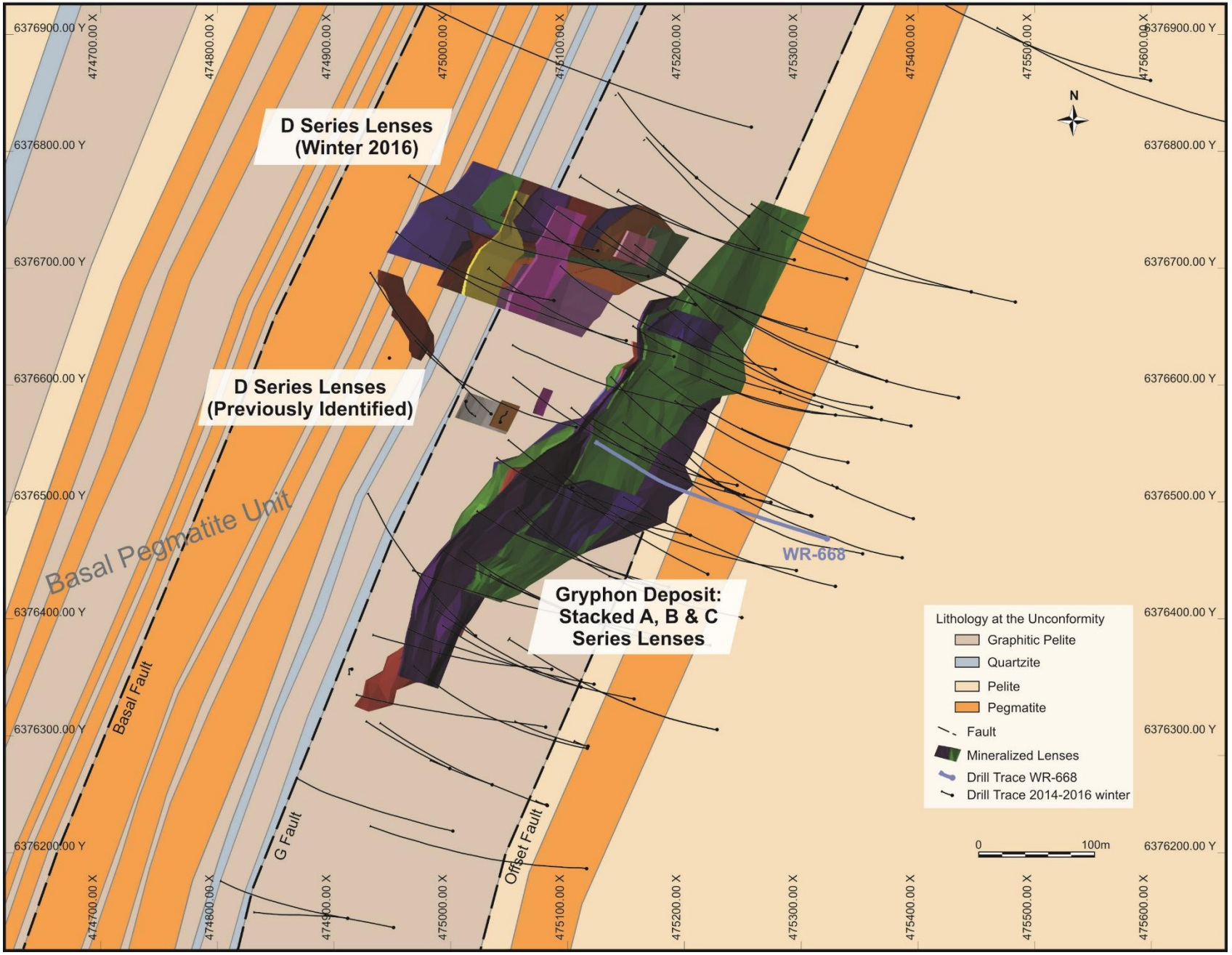



**Figure 2: Plan map of the northeast plunging Gryphon mineralized lenses projected up to the simplified basement geology at the sub-Athabasca unconformity. The location of the first infill hole WR-668 is provided.**