

HAYWOOD

SECURITIES INC.

Member of the Canadian Investor Protection Fund

Denison Mines Corp. (DML-T, C\$0.76, DNN-US, US\$0.60)

Rating BUY
Target Price \$2.00 (from \$1.80)
Return 163%
Overall Risk Rating Very High

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Wheeler River PFS Rethinks Development Approach – Shows Huge Value Potential

Company Profile

Website – www.denisonmines.com

CEO – David Cates

About the Company – Denison is advancing its flagship Wheeler River uranium project, the largest, highest-grade undeveloped uranium project in the prolific eastern Athabasca Basin, Saskatchewan.

Company Data

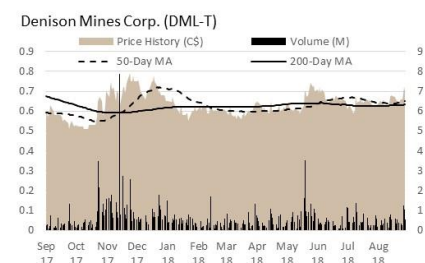
52-Week High/Low	\$0.80/\$0.50
YTD Performance	10%
Dividend Yield	N/A
Shares O/S	559M (basic)/ 566M (F/D)
Market Capitalization	\$425M
Cash	US\$38M
Debt	\$nil
Working Capital	US\$33M
Enterprise Value	\$382M
Daily Volume	465,276

Currency C\$ unless noted

Haywood Estimates

Year	2016A	2017A	2018E
Revenue (US\$M)	\$13.8	\$11.1	\$7.4
U ₃ O ₈ Production	-	-	-
EBITDA (US\$M)	(\$16.9)	(\$17.8)	(\$15.2)
CFPS (US\$)	(\$0.02)	\$0.02	(\$0.02)

Price Performance



Source: Capital IQ and Haywood Securities

Event | Denison has released summary results of a Pre-Feasibility Study (PFS) of the Wheeler River Project (63.3%-owned*), in the eastern Athabasca Basin, Saskatchewan. (current ownership *pending close of further consolidation to between 86.8%-90%*)

Impact – Positive | The new Wheeler River PFS represents a quantum shift in both our and the prior PEA’s assumptions about how the Phoenix & Gryphon deposits will be mined. The result of the innovative approach carries additional technical risk, but at a major CAPEX and OPEX reduction, which could unlock substantial additional potential value for the Project vs. the 2016 Preliminary Economic Assessment (Figure 1). The market reaction has been positive, with the stock breaking out to its January 2018 highs. We expect the stock to gain further positive momentum as DML endeavors to educate the street on the new ISR mining approach outlined for the Phoenix deposit.

■ **Wheeler PFS changes the development paradigm unlocking big potential.** The result of the innovative approach of applying ISR mining techniques at the Phoenix deposit carries additional technical risk due to the lack of tested analogue on unconformity style deposits confined by freeze-walling, but delivers a major up-front CAPEX and LoM OPEX reduction, which unlocks substantial additional potential value for the Project. Denison’s technical team is world-class and equipped to carry Wheeler forward through BFS and permitting for production.

■ **PFS implies very robust economics solidifying Wheeler’s position among the top projects in the global uranium development pipeline.** The PFS base-case used a more conservative uranium price assumption than the 2016 PEA, but still improves dramatically on most metrics delivering a pre-tax NPV of \$1.3 billion, with LoM blended OPEX of US\$7.1/lb, and pre-production CAPEX of just C\$323M (100% basis). Apples-to-Apples, at US\$44/lb uranium the PFS NPV came in at \$1.41 billion vs the 2016 PEA NPV of \$513 million, representing a 175% increase.

■ **Forecasts** – We previously attributed \$427M for DML’s 63.3%-share of Wheeler in our valuation. A re-modelling of Wheeler, sequencing Phoenix ahead of Gryphon, at lower CAPEX/OPEX assumptions (but higher than detailed in the PFS), yields \$613M for DML’s 63.3% share, lifting our target ~\$0.20. We expect to integrate a larger attributable share of Wheeler to DML upon close of the pending deal.

■ **Target Price, Ratings** – Our target increases \$0.20 to \$2.00 on a re-modelling of the Wheeler River Project, still at 63.3% attributable to DML pending close of acquisition of additional interest. Maintaining BUY and Very High-Risk rating.

Valuation | A corporate NAV sum-of-parts assessment of Denison’s full suite of interests, including a DCF_{10%} assessment of future production from Wheeler and other credits. Net of corporate adjustments, our NAV is \$1.1 billion, or \$2.00 per share.

Catalysts | 1) Filing of the recently released Wheeler River Preliminary Feasibility Study of Wheeler River Uranium project, 2) Closing of the agreement with Cameco to increase interest in the Wheeler River Project, and 3) Disclosure on timing of Feasibility Study, progress on EA and plan for Wheeler River.



Denison Mines Corp. TSX:DML Price: CDN \$0.76 Shares O/S (M) 559.2 Rating: Buy
 AMEX:DNN Price: US \$0.60 MCap (CDN\$ M) \$425.0 Target (CDN \$): \$2.00 Return: 163%

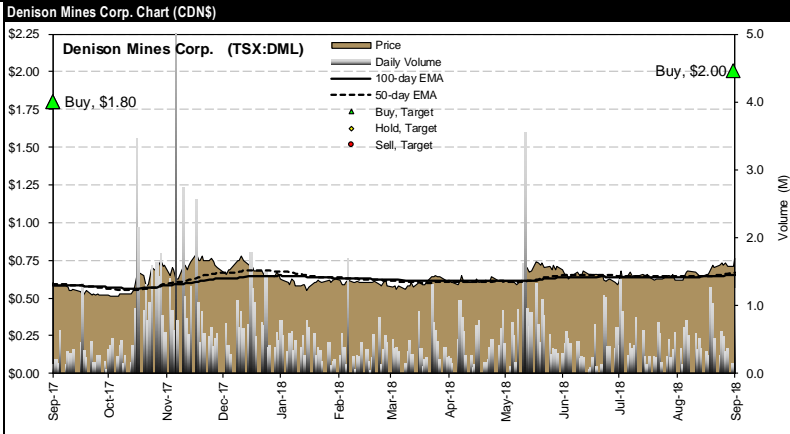
Alpha: Denison Mines is focused on becoming the preeminent exploration company in the Athabasca Basin. Following the sale of its U.S. assets, the Company has continued to expand its portfolio of strategic assets organically, and through strategic acquisition and investment in mainly in the eastern Athabasca Basin, Saskatchewan. Denison has a 22.5% interest in the McClean Lake mill.

Investment Highlights

- Denison is focused on building on its diverse strategic asset base making up its portfolio of uranium development assets in Canada.
- Denison's 2018 exploration programs will focus extensively on Athabasca Basin properties. The Company has announced exploration budgets on a 100%-basis for the 63.3%-owned Wheeler River project of: 2018 - C\$15.6M.
- Denison's is seeking to increase its interest in the flagship Wheeler River Project from 63.3% currently to up to 90% through previously announced agreements with Cameco, expected to close in the near future. DML will add interest in the project at a fraction of the value implied by the Sept. 2018 Pre-Feasibility Study and we expect the transaction to be accretive to the Company.

Catalysts:

- Results from 2018/19 exploration work programs
- Filing of the recently released Wheeler River Preliminary Feasibility Study of Wheeler River Uranium project
- Closing of the agreement with Cameco to increase interest in the Wheeler River Project
- Disclosure on timing of Feasibility Study, progress on EA and plan for Wheeler River

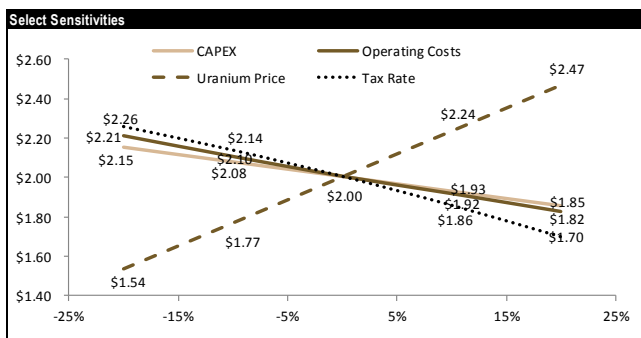


Financials	2014	2015	2016	2017	2018
(Year End 12/31)					
Forecast U308 Spot Price, US\$/lb	\$33	\$37	\$26	\$22	\$26
Forecast U308 LT Contract Price, US\$/lb	\$47	\$47	\$40	\$31	\$36
C\$/US FX Rate	1.10	1.28	1.33	1.35	1.33
A\$/US FX Rate	1.10	1.04	1.10	1.33	1.34
Shares O/S, millions	494.5	518.4	537.2	537.2	537.2
Revenue, US\$M	\$9.6	\$12.7	\$13.8	\$11.1	\$7.4
Mine Site Expense	\$11.7	\$12.4	\$10.6	\$10.6	\$0.0
Corporate G&A	\$15.1	\$23.0	\$5.0	\$4.3	\$0.0
EBITDA	(\$50.3)	(\$98.3)	(\$16.9)	(\$17.8)	(\$15.2)
EV / EBITDA	-	-	-	-	-
DD&A	\$2.1	\$3.6	\$0.0	\$0.0	\$0.0
Earnings	(\$49.8)	(\$97.4)	(\$12.2)	(\$13.5)	(\$11.5)
Adjusted EPS, US\$	(\$0.10)	(\$0.19)	(\$0.02)	(\$0.03)	(\$0.02)
Current Price / EPS	-	-	-	-	-
Target Price / EPS	-	-	-	-	-
Cash Flow Before W/C Changes	(\$21.8)	(\$18.3)	(\$9.9)	\$13.5	(\$10.6)
CFPS, US\$	(\$0.05)	(\$0.03)	(\$0.02)	\$0.02	(\$0.02)
Current Price / CFPS	-	-	-	24.4x	-
Target Price / CFPS	-	-	-	64.1x	-
Operating Cash Flow, US\$M	(\$24)	(\$18)	(\$8)	\$12	(\$11)
Financing Cash Flow, US\$M	\$14	\$12	\$9	\$14	\$0
Investing Cash Flow, US\$M	\$8	(\$5)	\$6	(\$36)	(\$0)
Change in Cash, US\$M	(\$3)	(\$13)	\$6	(\$9)	(\$11)
Working Capital	\$23	\$13	\$20	\$10	(\$1)
Current Ratio	2.7x	2.7x	3.7x	2.4x	0.9x
LT Debt, US\$M	\$0	\$0	\$0	\$0	\$0
Debt as % of Capitalization	0.0%	0.0%	0.0%	0.0%	0.0%

52 Week High/Low	\$0.80 / \$0.50	Average Daily Volume (90 day)	465,276
Ownership	Management / Institutional	Major Shareholders	
Shares (million)	3.40	108.70	Beutel Goodman & Company Ltd. 4.9%
% O/S	0.6%	19.4%	Global X Management Company LLC 4.5%
Last Financing	9-Mar-17 C\$20.0 M - bought deal PP - 5.8M common shr. at \$0.95, 8.5M FT (tranche A) shares at \$1.12 & 4.1M FT (tranche B) at \$1.23		
Shares O/S - Basic, F.D.	559.2	566.4	
(CSM)	Av Strike (C\$)	Units (M)	ITM Units (M) Proceeds (C\$)
Working Capital			\$38
Options	\$1.07	7.21	4.61 \$4
Convertible Bonds			
Total NWC & ITM		7.21	4.61 \$42
Market Cap (C\$)			\$425

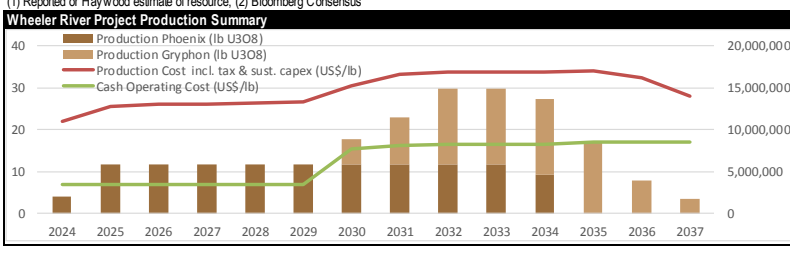
NAV Summary, Target Generation and Sensitivity	-20%	-10%	+10%	+20%
Average Realized U308 (US\$/lb)	\$69	\$55	\$62	\$76
McClean Lake/Midwest DCF (C\$M) (@10.0%)	\$38.7			
Wheeler River DCF (C\$M) (@10.0%)	\$613.3			
NPV of Corporate CF (@10.0%)	\$18.1			
Total Project NAV - Net of Corporate CFs	\$670.2			
McClean Lake Mill 22.5% Value (C\$M)	\$337.5			
Canada - Waterbury, others (C\$M)	\$80.5			
Equity interest in Goviex (C\$M)	\$15.5			
Corporate NAV Subtotal (CDN\$)	\$1,103.7	\$842.5	\$972.8	\$1,233.5
Working Capital (est. year end 2018)	\$13.1	\$13.1	\$13.1	\$13.1
Dilutive Capital	\$3.7	\$3.7	\$3.7	\$3.7
Corporate NAV (CDN\$)	\$1,120.5	\$859.3	\$989.6	\$1,250.3
Corporate NAVPS	\$2.00	\$1.54	\$1.77	\$2.24
Current P/NAV	0.4x	0.5x	0.4x	0.3x
Target P/NAV	1.0x	1.0x	1.0x	1.0x
Target (CDN\$)	\$2.00	\$1.50	\$1.80	\$2.20

Bloomberg Consensus Data (excluding Haywood estimates)	2018	2019
OCFPS	(\$0.01)	(\$0.01)
EPS	(\$0.01)	(\$0.01)



Peer Group Comparables	Symbol	Price (C\$)	M.CAP C\$	EV US\$	EV / lb Res ₍₁₎
Denison Mines Corp.	TSX:DML	\$0.76	\$425	\$284.1	\$1.96
NexGen Energy Ltd.	TSX:NXE	\$2.71	\$940	\$733.5	\$2.43
Fission Uranium Corp.	TSX:FCU	\$0.65	\$316	\$213.9	\$1.52
UEX Corporation	TSX:UEX	\$0.21	\$71	\$47.3	\$0.55
Average					\$1.61

(1) Reported or Haywood estimate of resource, (2) Bloomberg Consensus



Sales & Production Profile	2024	2025	2026	2027	2028
Production Attrib. Wheeler River U ₃ O ₈ (Mlb)	2.0	5.9	5.9	5.9	5.9
Sales Attrib. Wheeler River U ₃ O ₈ (Mlb)	2.0	5.9	5.9	5.9	5.9
U ₃ O ₈ Realized Price, US\$/lb	\$70	\$70	\$70	\$70	\$70
U ₃ O ₈ Cash Cost, US\$/lb	\$7.0	\$7.0	\$7.0	\$7.0	\$7.0
U ₃ O ₈ Product. Cost after tax & sust. capex, b/f interest, US\$/lb	\$22.0	\$25.6	\$26.0	\$26.2	\$26.4

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Source: Bloomberg, Capital IQ, Denison, Haywood



Wheeler River PFS

The major shift in the Wheeler River PFS compared to its 2016 PEA primarily relates to its mining method and sequencing which drives dramatically better economics – the Phoenix deposit will be prioritized and mined first using ISR techniques with first production expected in mid-2024. The PFS models cash flow from Phoenix used to fund capex for mining Gryphon using conventional underground methods. We note that the result of the innovative approach of utilizing ISR mining techniques at the Phoenix deposit carries additional technical risk due to its lack of tested analogue on unconformity style deposits confined by freeze-walling, but at a major up-front CAPEX and LoM OPEX reduction, which unlocks substantial additional potential value for the Project.

The new PFS outlined total Probable Reserves at the Wheeler River project of 1.398 Mt grading 3.5% U₃O₈ for 109.4 Mlb U₃O₈ within the established resources, including:

- **Phoenix Probable Reserves of 141 kt grading 19.1% U₃O₈ for 59.7 Mlb U₃O₈; and,**
- **Gryphon Probable Reserves of 1.257 Mt grading 1.8% U₃O₈ for 49.7 Mlb U₃O₈.**

The base-case used in the PFS uses a different, more conservative uranium price assumption than the 2016 PEA, but improves dramatically on most metrics, with a pre-tax NPV of \$1.3 billion (vs 2016 PEA base-case of \$513 million). For an apples-to-apples comparison, at US\$44/lb U₃O₈ (the base-case uranium price for the 2016 PEA) the new PFS generates a \$1.41 billion pre-tax NPV_{8%}, a 175% improvement over the 2016 PEA at \$513 million at the same uranium price. OPEX at Phoenix falls from US\$22.15/lb under the conventional underground mining approach of the PEA to just US\$3.33/lb in the new PFS implementing ISR. Mine sequencing now puts Phoenix ahead of Gryphon in the development and production plan, with upfront CAPEX to production falling to \$322.5 million from \$560 million in the PFS, as Phoenix is much less capital intensive under the new paradigm that Gryphon.

The major differences embedded in the new PFS vs the 2016 PEA are highlighted in the table below.

Figure 1. Differences between 2018 PFS and 2016 PEA

	2018 PFS Base Case	2016 PEA Base Case
Mine Life (y)	14 years	16 years
LoM Production (lb)	109.4 Mlb U ₃ O ₈	104.8 Mlb U ₃ O ₈
Phoenix	(years 1-10): 59.7 Mlb U ₃ O ₈	(years 8-16): 64.0 Mlb U ₃ O ₈
Gryphon	(years 8.5-14): 49.7 Mlb U ₃ O ₈	(years 1-7): 40.7 Mlb U ₃ O ₈
Avg. Annual Production (lb)	7.8 Mlb U ₃ O ₈	6.55 Mlb U ₃ O ₈
Phoenix	6.0 Mlb U ₃ O ₈	
Gryphon	7.6 Mlb U ₃ O ₈	
Up-Front CAPEX (\$M)	C\$322.5 million	C\$560 million
Phoenix	C\$322.5 million	
Gryphon	C\$623.1 million	
Sustaining CAPEX (\$M)	C\$186.2 million	C\$543 million
Phoenix	C\$103.5 million	

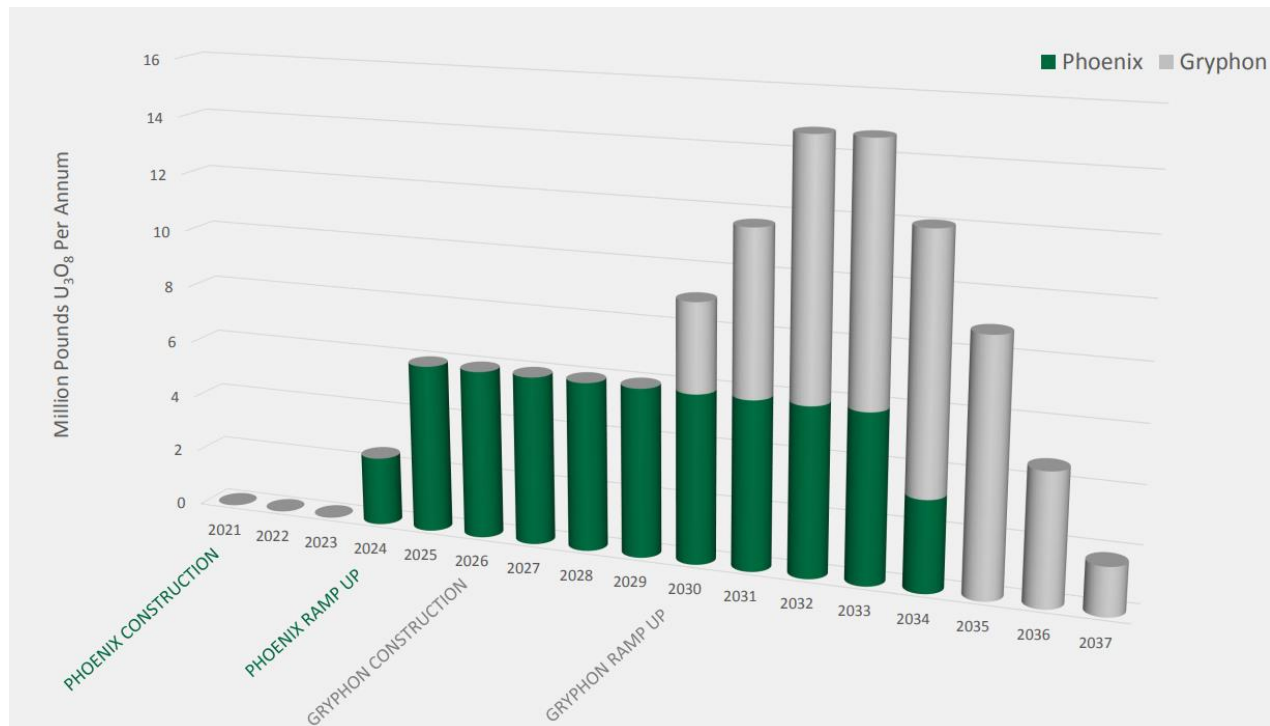


Gryphon	C\$82.7 million	
LoM OPEX (\$/lb)	US\$7.13/lb U ₃ O ₈	US\$19.01/lb U ₃ O ₈ (C\$25.67)
Phoenix	US\$3.33/lb U ₃ O ₈	US\$22.15/lb U ₃ O ₈ for the last 9 years
Gryphon	US\$11.70/lb U ₃ O ₈	US\$14.28/lb U ₃ O ₈ for the first 7 years
Base Case Financial Valuation	At US\$29-45/lb U ₃ O ₈ for Phoenix (y 1-10) At US\$50/lb U ₃ O ₈ flat for Gryphon (y 8.5-14)	At US\$44/lb U ₃ O ₈
IRR (%)	Pre-tax: 38.7%	Pre-tax: 20.4%; Post-tax: 17.8%
NPV_{8%}	Pre-tax: C\$1.31 billion	Pre-tax: C\$513 million; Post-tax: C\$343 million
Payback (y)	~ 2 years	3 years

Source: Haywood Securities Inc., Denison Mines Corp.

From a valuation standpoint, we previously had \$425 million attributable to Denison in our model for Wheeler River at DML’s current 63.3% ownership. Today’s PFS suggests a post-tax NPV_{8%} for DML’s attributable share of Wheeler to be \$506.4 million, or ~19% better than our prior valuation. We note that with DML in the process of increasing its ownership of Wheeler River to up to 90%, at this level the PFS suggests DML’s attributable share of Wheeler would be worth \$755.9 million in the base case. In our updated model of the Wheeler project, we impose more conservative CAPEX and OPEX assumptions than the FPS, offset by our higher long-term uranium price assumption. Technical risk is likely the biggest push-back the market may have given the modelled use of an ISR mining approach at the Phoenix deposit in combination with freeze walling required to contain and confine water flow around and within the unconformity-style deposit.

Figure 2: Wheeler River Production Profile



Source: Denison Mines Corp.



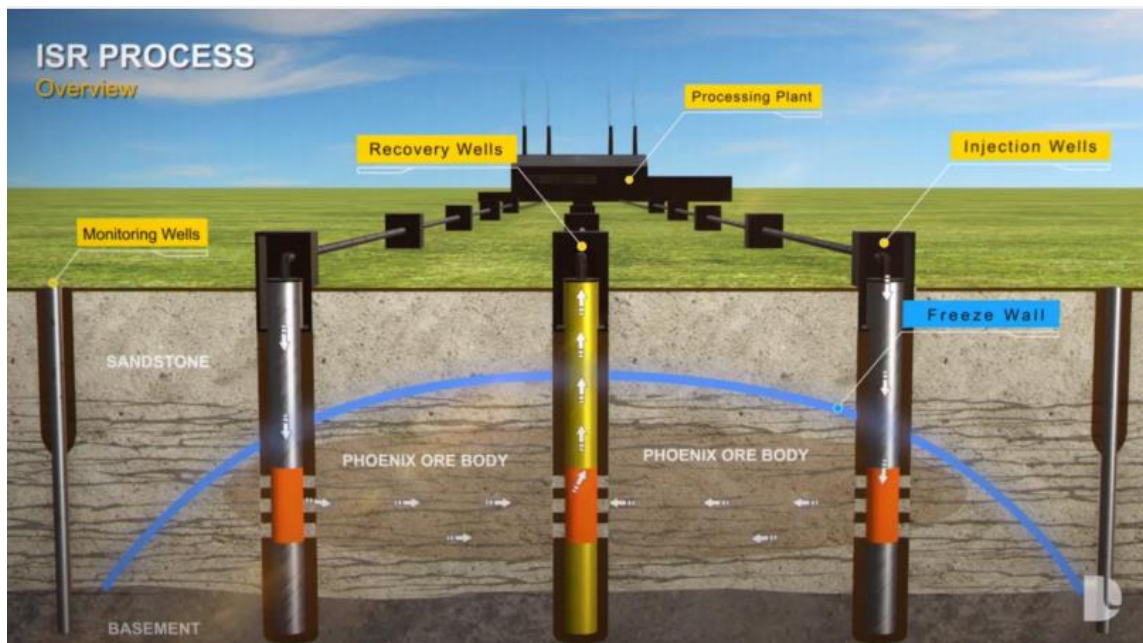
Phoenix Deposit

The mining method for the Phoenix deposit considers an in-situ recovery (ISR) operation, which was selected over alternative methods to replace the Jet Bore Mining system (JBS) used in the 2016 PEA. ISR has many advantages over JBS, including lower technical risk in typical implementation (sandstone hosted roll-front style deposits), shorter construction timelines, greater flexibility, minimal surface impact, and typically lower operating and capital costs. Field and lab tests completed so far have indicated robust processing and extraction rates (98.5% and +90%, respectively) using a simple flow sheet in which uranium is precipitated directly from the solution, eliminating the need for ion exchange or solvent extraction circuits. Additionally, Denison suggests this operational concept with low capital intensity would allow DML to remain unhedged and maintain its uranium price leverage ahead of a development decision, allowing for **greater exposure to upside potential in uranium prices**. The study estimates an initial capital cost of \$322.5M, average cash operating costs of \$4.33 (US\$3.33)/lb U₃O₈, and all-in costs of \$11.57 (US\$8.90)/lb U₃O₈. It also estimates total production of 59.7M lb U₃O₈ over mine life of 10 years (6 Mlb/year), and sales price assumptions ranging from US\$29 to US\$45/lb U₃O₈, resulting in a **pre-tax NPV of \$930.4M** and a **pre-tax IRR of 43.3%**.

Phoenix to be the first ISR exploited deposit in the Athabasca Basin due to its host rock permeability.

The ISR process involves pumping a solution through the orebody via an injection well. The solution dissolves the uranium in the orebody and this uranium bearing solution is then pumped back to the surface through a recovery well to be processed on-site. The solution and the uranium are chemically separated at the plant and then the solution is returned to the well field. This method is environmentally advantageous as it avoids tailings, may potentially have no water discharge to surface water bodies, and may use the existing provincial power grid. The freeze wall to contain the mining solution also minimizes the environmental impact and allows for controlled reclamation. This should be viewed favourably from a permitting standpoint and management's initial consultations with regulators and stakeholders regarding this are reportedly encouraging.

Figure 3: ISR Mining Process for Phoenix

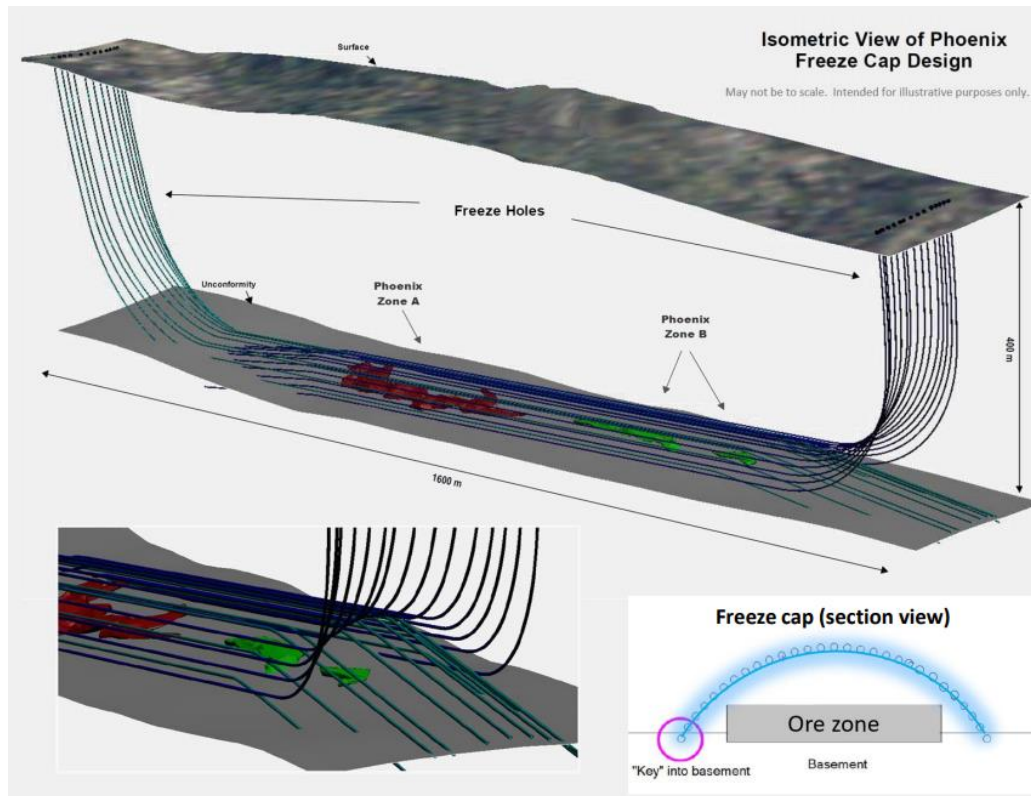


Source: Denison Mines Corp.



Freeze cap to address key concerns associated with ISR operations. As the Phoenix deposit is hydraulically connected the regional groundwater system, a 10-metre thick freeze wall will combine with basement rocks to encapsulate the deposit and contain the mining solution. This will require drilling parallel cased holes from surface and using directional drilling to establish the horizontal axis through which a low temperature brine solution will be used to freeze the groundwater within the sandstone.

Figure 4: Phoenix Freeze Cap

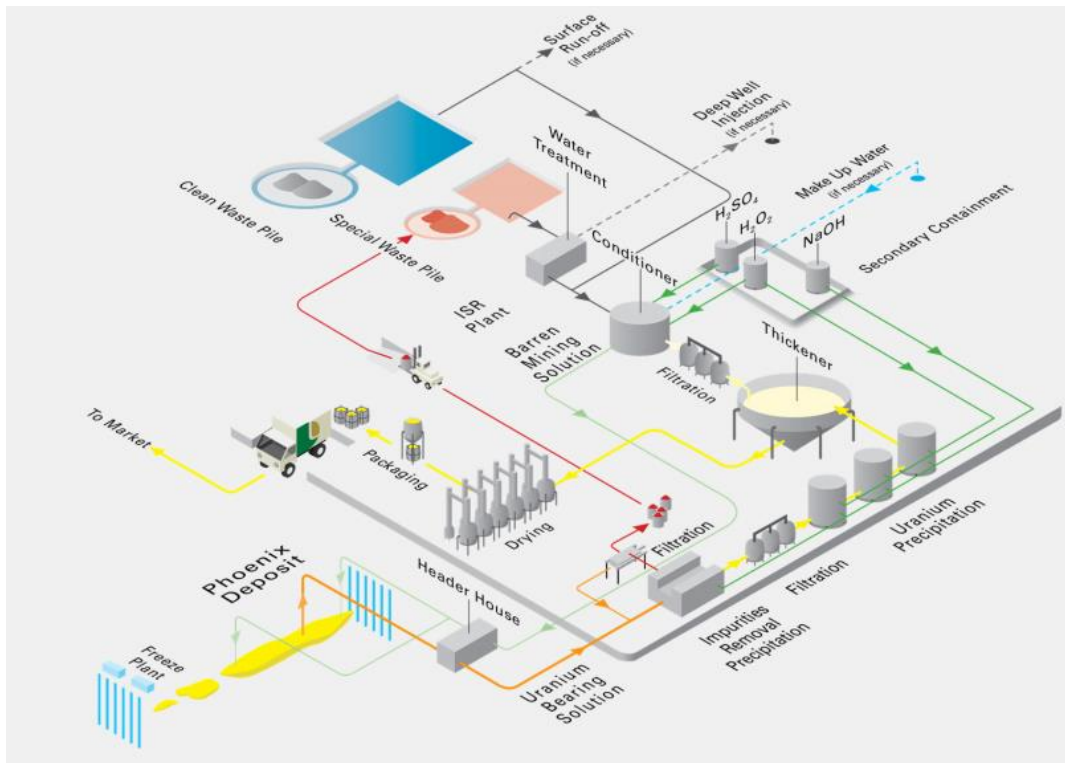


Source: Denison Mines Corp.

Well field design and simple closed loop processing plant contributes to strong economics. The Phoenix ore is confined to a 1 km x 50 metre zone, which will result in relatively low infrastructure and operating costs compared to conventional ISR operations that have wider spaced wells. The PFS proposes a total of 310 wells (94 recovery, 199 injection, and 17 monitoring) for a total of 133,300 drill metres. The on-site processing plant has been designed to have throughput of 500 litres/minute, which will drive annual production of 6M lbs U_3O_8 at reserve grade. The plant will have a closed loop system, which allows for reconditioning the mining solution for reinjection after the uranium has been precipitated. Metallurgical testing indicates high recovery rates (98.5%) with insignificant impurity levels using an acid leaching solution, which will also contribute to lower OPEX.



Figure 5: Phoenix ISR Processing Plant



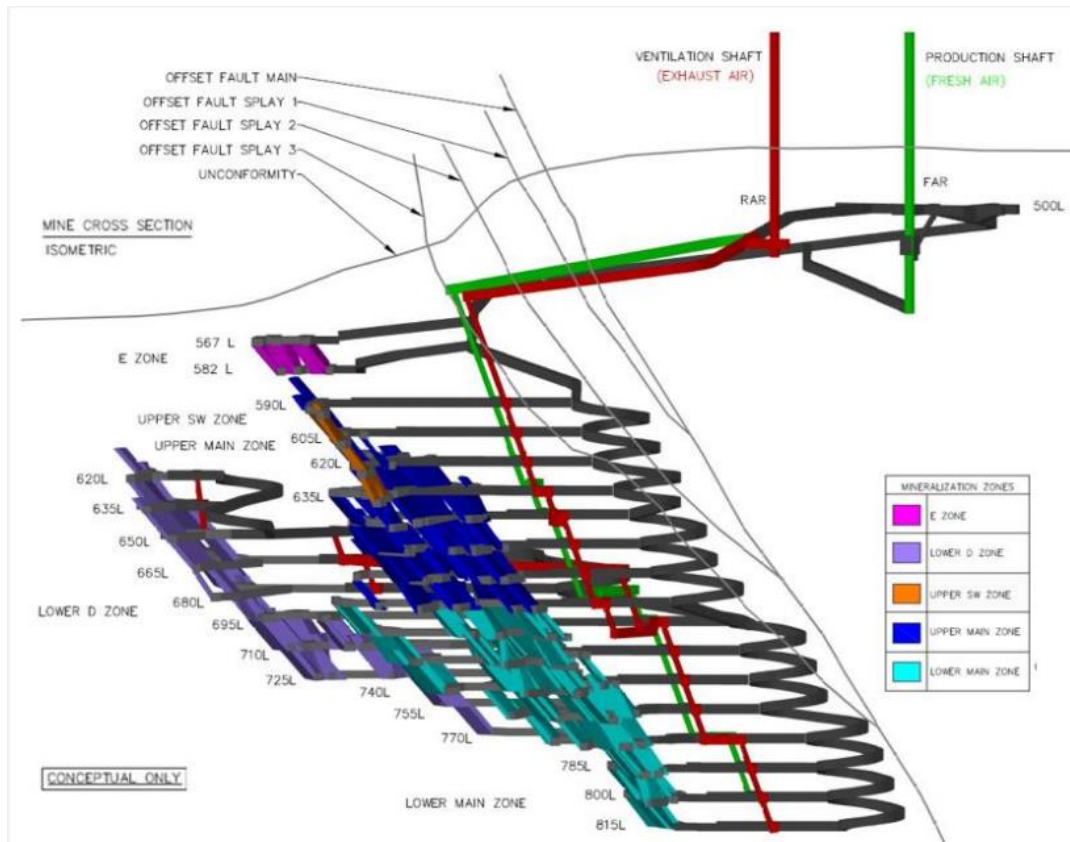
Source: Denison Mines Corp.

Gryphon Deposit

The mining method considered in the PFS uses conventional underground mining with long-hole stoping. Based on the new mine sequence, production is anticipated to commence its ramp up phase in 2030 and have a 6.5 year mine life with average annual production of 7.6M lbs U₃O₈ (600 tonnes per day). The PFS assumes a flat selling price of US\$50/lb, initial capital costs of \$623.1M, sustaining capex of \$82.7M, and total OPEX of \$15.21 (US\$11.70)/lb U₃O₈, which results in a \$560.6M pre-tax NPV_{8%} and 23.2% pre-tax IRR. The PFS assumes processing at the McClean Lake mill (22.5% owned by Denison), which will require upgrading to handle the volume expected from Gryphon. As such, mill capacity will be a constraint for Gryphon. Initial met work using the existing McClean Lake flowsheet indicated an estimated recovery rate of 98.2%.

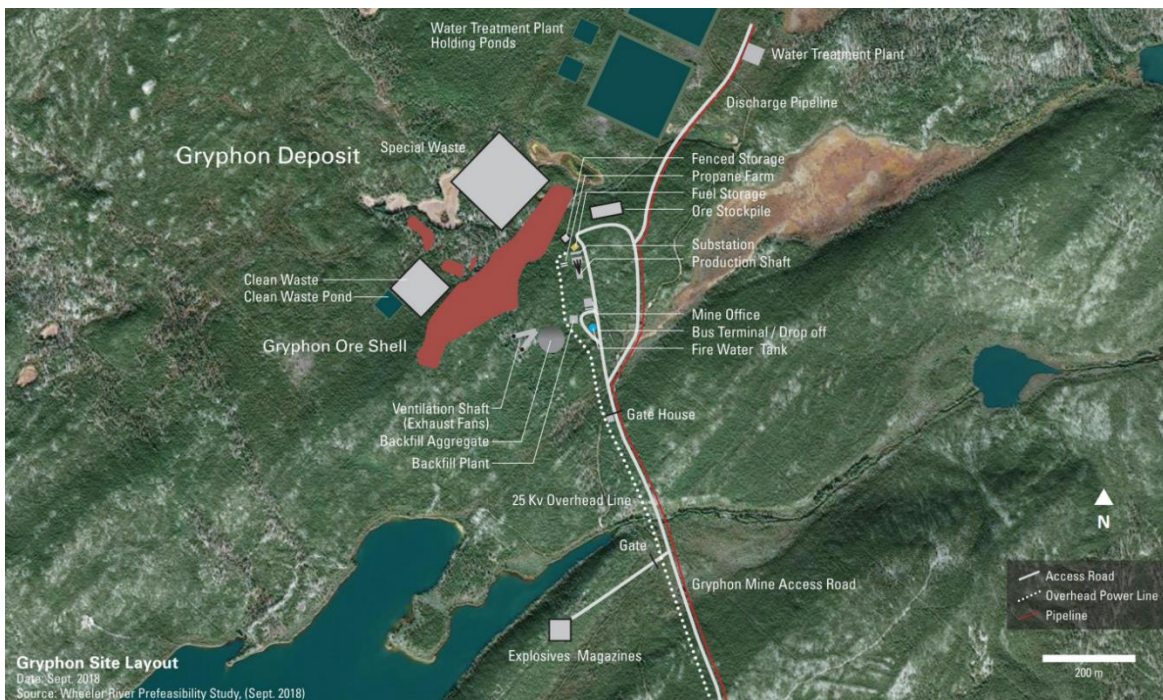


Figure 6: Gryphon Underground Mining Concept



Source: Denison Mines Corp.

Figure 7: Gryphon Site Infrastructure



Source: Denison Mines Corp.



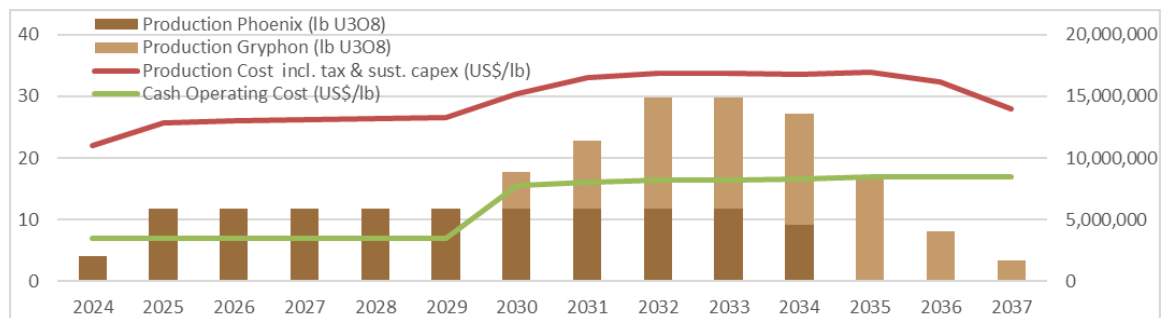
Valuation & Target Price

We have modelled the Wheeler River project under our own more conservative assumptions for CAPEX / OPEX and discount rate, offset by our higher long-term uranium price assumption of US\$70/lb U₃O₈. We largely replicate the production profile and development timeline outlined in the PFS, and continue to attribute DML's current 63.3%-ownership of the project to our valuation pending finalization of share structure and ownership percentage outcome of the previously announced deal with Cameco. We expect that any additional ownership in the project at the disclosed deal price point would be further accretive to our target price on DML. Please see our [<Sept 5th Radar Flash>](#) for commentary on DML's plan to further consolidate Wheeler River.

The main assumptions underpinning our Wheeler River DCF NAV are outlined below:

- **Mine Life:** 14 years
- **LoM Production:** 108 Mlb U₃O₈
- **Average Annual Production:** 7.7 Mlb U₃O₈
- **Uranium Price:** US\$70/lb U₃O₈
- **Financing:** 100%-debt modelled at 10% interest rate, pre-production interest on CAPEX accrues to the loan, amortized over first 6-years of production.
- **Up-front CAPEX:** US\$400 million (Phoenix)
 - plus, US\$480M for Gryphon over 4 years commencing toward the end of year 2 of production from Phoenix
- **Sustaining CAPEX:** Phoenix over LoM, US\$105 million; Gryphon over LoM, US\$80 million
- **Cash OPEX:** Phoenix LoM avg. of US\$7.0/lb; Gryphon LoM avg. of US\$17.0/lb
- **NPV_{10%}:** \$970 million (100%-basis), \$613 million attributable to DML on 63.3% basis

Figure 8: Haywood Wheeler Rive Production and Cost Profile



Source: Haywood Securities

Change to Valuation: We previously attributed \$427M for DML's 63.3%-share of Wheeler in our valuation. A re-modelling of Wheeler, sequencing Phoenix ahead of Gryphon, at the above-noted assumptions, yields \$613M for DML's 63.3% share, lifting our target ~\$0.20. We expect to integrate a larger attributable share of Wheeler to DML upon close of the pending deal.

Target Price, Ratings – Our target increases \$0.20 to \$2.00 per share on a re-modelling of the Wheeler River Project, still at 63.3% attributable to DML pending close of acquisition of additional interest. Our updated valuation is based on a corporate NAV sum-of-parts assessment of Denison's full suite of interests, including a DCF_{10%} assessment of future production from Wheeler and other credits. Net of corporate adjustments, our NAV is \$1.1 billion, or \$2.00 per share. We maintain our BUY Rating and Very High-Risk Rating.



Stock Price Catalysts

Going forward, we expect sustained momentum in DML shares to be primarily driven by the uranium commodity price and sentiment for uranium equities. **Company specific catalysts include 1) Filing of the recently released Wheeler River Preliminary Feasibility Study of Wheeler River Uranium project, 2) Closing of the agreement with Cameco to increase interest in the Wheeler River Project, and 3) Disclosure on timing of Feasibility Study, progress on EA and plan for Wheeler River.**

Figure 9. Wheeler River Project NI 43-101 Resource Estimate (January 2018)

NI 43-101 Resources Wheeler River (100%-Basis) - (Jan. 31, 2018)								Change vs Nov. 2015	
Project	Denison	Deposit	Category	tonnes	U ₃ O ₈ Grade (%)	Contained U ₃ O ₈	Cut-off Grade	Contained (lb)	
Wheeler River	63.3%	Phoenix	Indicated	166,400	19.1%	70.2	0.8%	0.0%	
		Gryphon	Indicated	1,643,000	1.7%	61.9	0.2%	new / converted	
		Total Indicated			1,809,400	3.3%	132.1		88.3%
		Phoenix	Inferred	8,600	5.8%	1.1	0.8%	0.0%	
		Gryphon	Inferred	73,000	1.2%	1.9	0.2%	-95.5%	
		Total Inferred			81,600	1.7%	3.0		-93.1%
Total M & I				1,891,000	3.2%	135.1	18.2%	18.2%	

Source: Denison Mines Corp., Haywood Securities calculations and presentation

Wheeler River Project Remains Largest Undeveloped high-grade uranium project in the eastern Athabasca. The Wheeler River project is, as Denison would put it, “right on main street” in the prolific eastern Athabasca basin, where years of successful mining have left substantial well-developed infrastructure. The Wheeler River project is expected to benefit in development from Denison’s 22.5% interest in the operational McClean Lake mill, which currently processes 100% of the Cigar Lake mine’s ore, but is expected to be utilized in the back half of the Wheeler River project production life to process Gryphon ore.

Investment Thesis

Denison continues to expand its suite of uranium assets of growing strategic importance in the prolific Athabasca Basin, Saskatchewan. In September of this year Denison announced a deal with Cameco to acquire its remaining share of the Wheeler River Project. Upon conclusion of the deal, Denison will own between 86.84% and 90% of the Wheeler River Project (depending on the other JV partner’s ROFR action) (See Sept. 5th Report), for a bargain price of ~C\$16M in Denison shares. Denison has a 22.5% stake in the McClean Lake high-grade uranium mill which continues processing 100% of the Cigar Lake Mine ore. Investment in DML provides an attractive array of opportunities in the uranium space, offering the potential for:

- Significant resource expansion potential:** With exploration success at multiple assets, most recently at both the Wheeler River Project proximal to the Gryphon Zone and at the 22.5%-owned Waterbury Lake Project where Denison continues to identify new mineralized zones through efficient exploration leveraging a strong technical team. In February 2018 Denison updated the Wheeler River Project resource estimate (135 Mlb U₃O₈, avg. grade ~3.3% U₃O₈) increasing total resources by >18%, with 98% of the total resources at Wheeler now defined in the higher-confidence ‘Indicated’ category laying the framework for a strong PFS. The September 2018 PFS outlined total Probable reserves at the Wheeler River project of 1.398 Mt grading 3.5% U₃O₈ for 109.4 Mlb U₃O₈ within the established resources. Denison continues to develop and increase its ownership of what we expect to become an attractive component of an evolving production pipeline in the eastern Athabasca Basin, including a dominant stake in one of the highest-grade, largest, undeveloped uranium resources globally in a prolific uranium mining jurisdiction.



- **Future Production potential** in the next 6-8 years with a strong PFS now in hand for Wheeler River and a proximal, partially owned (22.5%), permitted operating mill (McClellan Lake) backstopping the Gryphon deposit, Denison continues to de-risk Wheeler River and move it up the global development pipeline with its attractive cost profile, low-risk jurisdiction, innovative approach to mining and well-developed infrastructure. Future production potential also exists with the McClellan Lake Underground project, potentially using the innovative Surface Access Borehole Resource Extraction (SABRE) technique currently being developed and tested, or by conventional underground mining.

Risks

Significant Investment Risks

The investment to which this report relates carries various risks which are reflected in our Overall Risk Rating. We consider the following to be the most significant of these investment risks:

- **Continued Exploration Success:** Denison is primarily focused on uranium exploration with key assets in Canada. A significant component of our valuation includes continued success in exploring for, and defining, additional uranium resources at core projects. Exploration success is a core risk, where failure to identify and define additional resources could materially impact our valuation.
- **Commodity Price Forecast:** A material component of our valuation of Denison includes future uranium production from certain Canadian assets. A production decision would be dependent on several factors, but primarily would require a uranium price materially higher than current market prices, as we have modeled. Failure for these higher commodity prices to materialize could result in the Company not meeting our production and/or cash flow expectations.

For further information on our Risk Rating

please visit: <http://haywood.com/what-we-offer/research/research-policy>



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- n/a

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HOLD – The analyst believes that the security is expected to perform in line with other companies in their sector on a risk adjusted basis or for the reasons stated in the research report the analyst believes that the security is deserving of a (continued) HOLD rating.

SELL – Investors are advised to sell the security or hold alternative securities within the sector. Stocks in this category are expected to under-perform other companies on a risk adjusted basis or for the reasons stated in the research report the analyst believes that the security is deserving of a (continued) SELL rating.

TENDER – The analyst is recommending that investors tender to a specific offering for the company's stock.

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Overall Risk Rating

Very High Risk: Venture type companies or more established micro, small, mid or large cap companies whose risk profile parameters and/or lack of liquidity warrant such a designation. These companies are only appropriate for investors who have a very high tolerance for risk and volatility and who are capable of incurring temporary or permanent loss of a very significant portion of their investment capital.

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who have a high tolerance for risk and volatility and who are capable of incurring a temporary or permanent loss of a significant loss of their investment capital.

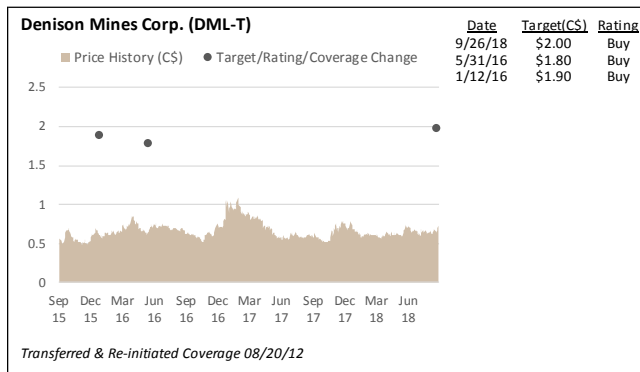
Medium-High Risk: Typically mid to large cap companies that have a medium to high investment risk. These companies will often form part of the broader senior stock market indices or sector specific indices. These companies are only appropriate for investors who have a medium to high tolerance for risk and volatility and who are prepared to accept general stock market risk including the risk of a temporary or permanent loss of some of their investment capital

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Distribution of Ratings (as of September 26, 2018)

	%	#	IB Clients (TTM)
Buy	75.0%	72	92.9%
Hold	12.5%	12	0.0%
Sell	1.0%	1	0.0%
Tender	2.1%	2	3.6%
UR (Buy)	0.0%	0	0.0%
UR (Hold)	0.0%	0	0.0%
UR (Sell)	0.0%	0	0.0%
Dropped (TTM)	9.4%	9	3.6%

Price Chart, Rating and Target Price History (as of September 26, 2018)



B: Buy; H: Hold; S: Sell; T: Tender; UR: Under Review
 Source: Capital IQ and Haywood Securities