



Denison Mines Corp.

{DML-T, DNN-US}

SECTOR: Mining

STOCK PRICE	\$2.15
RATING	BUY
TARGET PRICE	\$2.90
RISK	Very High

SUCCESSFUL COMPLETION OF ISR FIELD TESTS AT PHOENIX DEPOSIT, WHEELER RIVER

Field Program Comes to a Close Delivering Multiple de-Risking Milestones

OUR TAKE: This morning, Denison announced the completion of its 8-month long In-Situ Recovery Field Test program at the Phase 1 area of the Phoenix deposit at its 95% owned Wheeler River Uranium Project. The Company's ISR Field Test program was designed to reduce risk and provide further confidence in the Company's planned use of the ISR mining method at Phoenix. Denison has installed and tested with five commercial-scale wells ("CSWs"), and 10 additional small diameter monitoring wells ("MWs") within the Phase 1 area of the Phoenix deposit (see Figure 1). A full-scale well pattern injection and pumping test was conducted to determine hydraulic connectivity for the Test Pattern as a whole, and to evaluate potential production rates for the pattern. According to the Company, due to an unanticipated failure of the submersible pump in GWR-042, the test was run as a modified 4-spot pattern, rather than the planned 5 spot pattern. Importantly, the test achieved the 50 L/min flow rate assumed in the 2018 PFS for an operating well pattern. Hydraulic control of the Test Pattern was confirmed with no significant hydrologic responses observed in any of the overlying or underlying monitoring wells. An ion tracer test was also completed using the 4 functional CSWs in the Test Pattern where the Company observed breakthrough times consistent with previous hydrogeological modelling conducted by Petrotek (see [radar flash dated June 5, 2020](#)). Following the ion tracer test, Denison successfully conducted a "clean-up" remediation test to simulate the ability to remove injected fluid from the Test Pattern. Tracer concentrations measured during the eight-day clean-up simulation declined to as low as 13% of the peak TDS value in GWR-038, 11% of the peak TDS value in GWR-041, and 4% of the peak TDS value in GWR-039. Finally, as the Company conducted its ion tracer and subsequent cleanup test, its monitoring and field measurements were able to support the Company's ability to maintain hydraulic control. Notably, sampling of the three overlying MWs for TDS values before and after the ion tracer test presented no elevated values in TDS during the test thus confirming no migration of the tracer to overlying horizons. While Denison has been working on continuing to provide support for the use of ISR at Phoenix, **the Company's Field Test achievement of the targeted flowrate from the PFS in a commercial-scale well pattern located within Phase 1 of Phoenix, and its demonstration of its ability to control fluid flows during the tracer test, together mark another highly significant de-risking milestone for the Project.** Furthermore, the positive results assist the Company in providing the necessary datasets for the permitting and preparation of its planned lixiviant test in 2022, which would be a major milestone and de-risking event for this 'unique to the Basin' ISR mining approach. Additionally, the lixiviant test is expected to support the completion of the Company's formally launched Feasibility Study for the Project (see [radar flash dated September 22, 2021](#)). Denison was highlighted in our Haywood 2021 Top Picks Report [<Link to Haywood 2021 Top-Picks report. DML details on p.30>](#).

2021 ISR Field Program Highlights

- ◆ Achieved the commercial-scale production flowrate assumed in the Pre-Feasibility Study prepared for the Project in 2018.
- ◆ Demonstrated hydraulic control of injected solution during ion tracer test – reporting no elevated values of the tracer element in the monitoring wells surrounding the commercial-scale test pattern.
- ◆ Established breakthrough times between injection and recovery wells, spaced 5 to 10 meters apart, that are consistent with previous 'Proof of Concept' hydrogeological modelling conducted by independent contractors.
- ◆ Completed 'clean-up phase' following tracer test demonstrating ability to remediate the test pattern – reducing tracer concentrations to as low as 4% of peak test levels within eight days of remediation.

RECOMMENDED ACTION

We recommend adding exposure as Denison continues to de-risk the Wheeler River project and sector fundamentals improve...

- ◆ **Denison continues to be rated a top-pick in the uranium space largely underpinned by our thesis that recent de-risking work at Wheeler River regarding the ISR mining approach to the ultra-high-grade Phoenix deposit is going under-appreciated by the market.** Denison has made significant positive technical progress in the field in 2021 along with very positive drill results that we expect will ultimately mean more uranium actually recovered from Phoenix. **We believe that work-to-date is highly encouraging and sets the stage for a very important live lixiviant test in 2022, which will be a major milestone** and we expect results of this technical work to further support our thesis that **DML will be successful in mining Phoenix by the ISR technique resulting in an extremely low production cost profile and is therefore a 'must own' for uranium sector investors.** We recommend buying Denison to gain leverage to the uranium sector and potentially ultra low cost future production from Wheeler River while Denison works to uncover additional value in its extensive portfolio of other projects.

KEY STATISTICS AND METRICS

52-Week High/Low	\$2.41/\$0.41
YTD Performance	156%
Dividend Yield	N/A
Shares O/S	807.4M
Market Capitalization	\$1,736M
Cash	\$115M
Debt	NIL
Enterprise Value	\$1,621M
Daily Volume (3 mos.)	3,573,940
Currency	C\$ unless noted

HAYWOOD ESTIMATES (CAD)

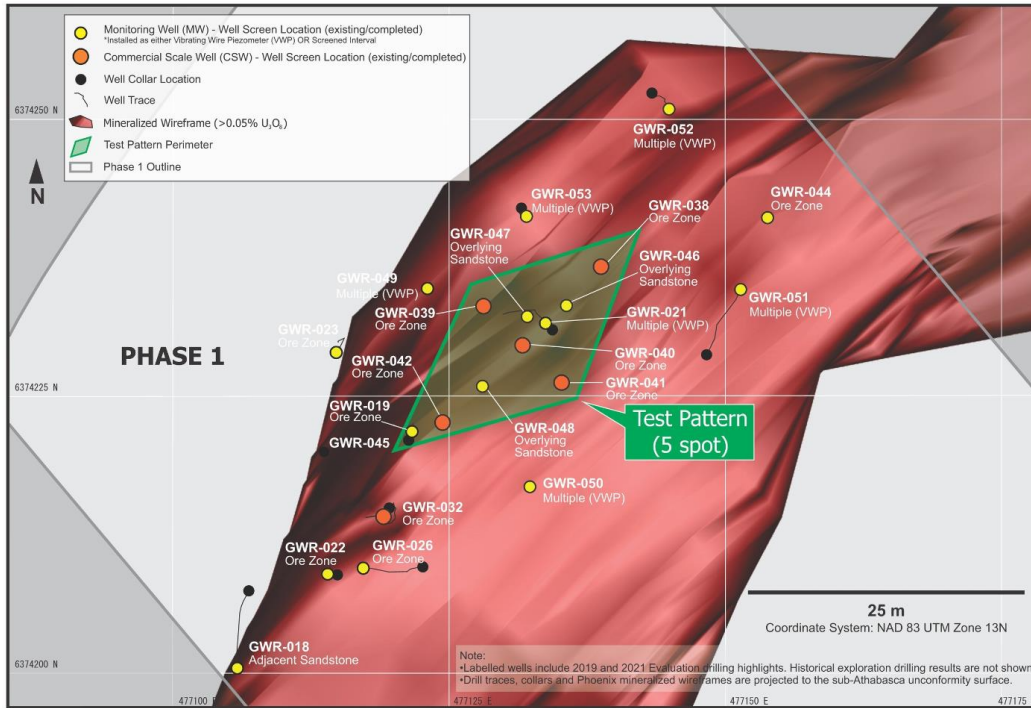
	2019A	2020A	2021E
Revenue (\$M)	\$15.5	\$14.4	\$13.5
U ₃ O ₈ Production	-	-	-
EBITDA (\$M)	(\$14.9)	(\$7.3)	(\$15.1)
CFPS (\$/share)	(\$0.03)	(\$0.02)	(\$0.02)

VALUATION

Our target is based on a corporate NAV sum-of-parts assessment of Denison's full suite of interests, including a DCF_{6%} assessment of future production from the Wheeler River project and other credits.

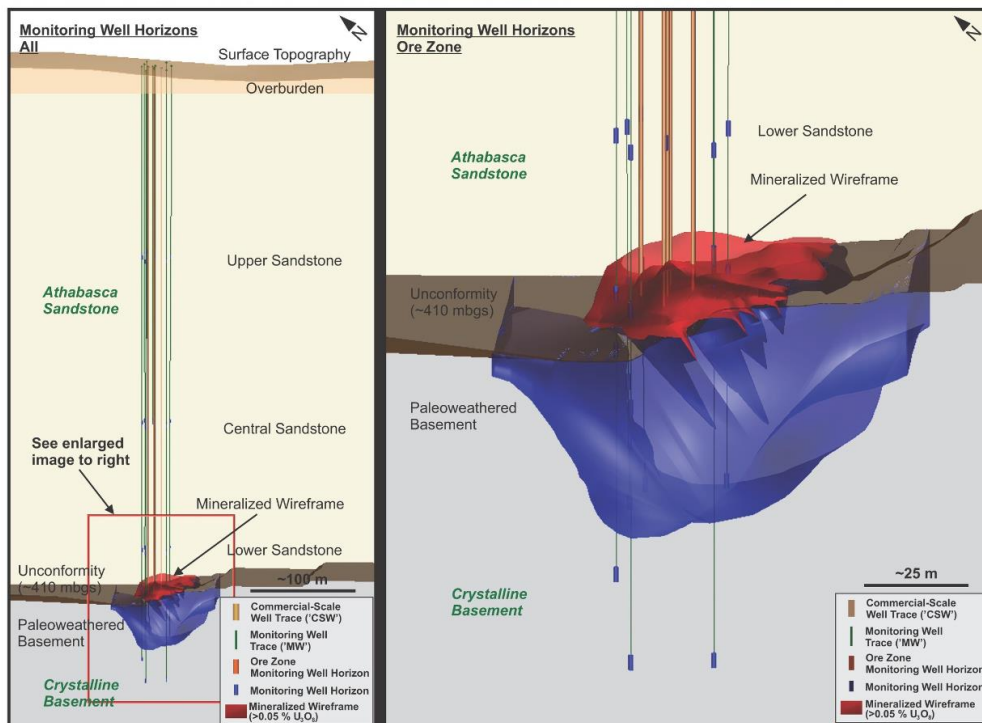
Net of corporate adjustments, our NAV is \$2.47 billion, or \$2.87 per fully diluted share.

Figure 1 - Plan Map Showing Well Screen Location at Phoenix Deposit (Phase 1) – ISR Test Pattern



Source: Denison Mines Corp

Figure 2 - Cross Section Showing Location of Test Pattern Wells at Phoenix Deposit (Phase 1)



Source: Denison Mines Corp



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Analyst Certification

I, Colin Healey, hereby certify that the views expressed in this report (which includes the rating assigned to the issuer's shares as well as the analytical substance and tone of the report) accurately reflect my/our personal views about the subject securities and the issuer. No part of my/our compensation was, is, or will be directly or indirectly related to the specific recommendations.

Important Disclosures

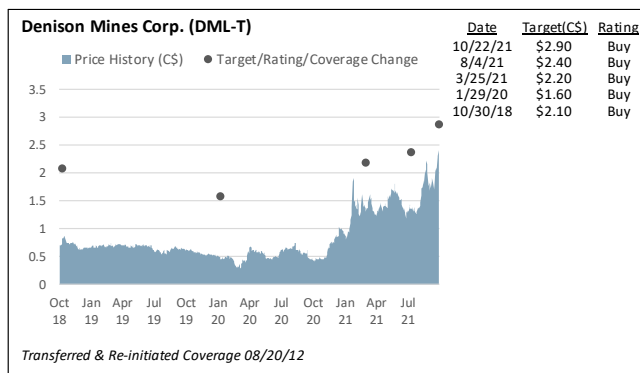
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Distribution of Ratings (as of October 28, 2021)

	%	#	IB Clients (TTM)
Buy	81.6%	80	84.6%
Hold	6.1%	6	7.7%
Sell	0.0%	0	0.0%
Tender	2.0%	2	2.6%
UR (Buy)	0.0%	0	0.0%
UR (Hold)	0.0%	0	0.0%
UR (Sell)	0.0%	0	0.0%
Dropped (TTM)	10.2%	10	5.1%

Price Chart, Rating and Target Price History (as of October 28, 2021)



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

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