



Denison Mines Corp.

{DML-T, DNN-US}

SECTOR: Mining

STOCK PRICE	\$1.52
RATING	BUY
TARGET PRICE	\$2.90
RISK	Very High

FEASIBILITY FIELD TEST UPDATE

Denison Recovers Uranium via ISR in Milestone for Project and Region

OUR TAKE: This morning, in yet another significant de-risking milestone for the project, Denison announced that it has successfully recovered uranium in solution via In-Situ Recovery ("ISR") as part of the Feasibility Field Test ("FFT") taking place at its Phoenix uranium deposit at its 95%-owned Wheeler River project. The FFT utilizes the commercial-scale ISR test well pattern installed at the project last year to facilitate a combined assessment and validation of the Phoenix deposit's hydraulic flow properties along with the leaching characteristics that have been previously assessed through the metallurgical core-leach testing program. By way of background, the FFT implements a three phase design, commencing with the Leaching Phase (now complete) which involved controlled injection of acidic solution into a portion of the existing commercial-scale test pattern installed in 2021, transitioning to the Neutralization Phase which is now underway and involves the injection of mild alkaline solution to arrest the leaching process and return test area to protective conditions, and culminates with the Recovered Solution Management Phase (separation of recovered solution into mineralized precipitates that are temporarily stored in tanks on surface then neutralized treated solution is reinjected into sub-surface). **The Leaching Phase (lixiviant injection) of the FFT commenced in September 2022 (see report dated September 26, 2022) and although actual chemistry of the recovered solution was not provided, Denison reports that it recovered uranium bearing solution at "targeted rates and grades" and that the hydrogeological system responded to lixiviant injection as expected in terms of fluid flow characteristics, uranium recovery and pH trends.** With the successful recovery of uranium bearing solutions, Denison's Leaching Phase lixiviant injection has concluded and DML is preparing to move into the **Neutralization Phase, which is expected to be completed before the end of the year, with the final phase of the FFT, management of the recovered solution, expected to commence in the spring of 2023.** The Neutralization Phase will validate the remediation process for returning the mining area to "environmentally acceptable" conditions and is thus also a high-value activity in terms of de-risking the project and informing design parameters of the eventual Feasibility Study. **With the next steps for the FFT planned to include full lab analysis of the collected uranium bearing solutions, the results could act as a further catalyst for DML and will provide important details about initial uranium grades in solution and additional mineral/metal content picked up by the in-ground leach which will aid in refining the design of the future processing facilities on surface.** Denison's team continues to execute admirably with respect to Phoenix and the FFT, effectively navigating the complex and tightly regulated regime to enable the testing of this new technical approach to uranium extraction in the Basin and we are confident that the same expertise can be leveraged all along the development path of the Wheeler River project. We look forward to results of the Neutralization Phase in coming months.

HIGHLIGHTS

- ◆ **Results of Leaching Phase meet expectations.** We await detailed chemical analysis of the recovered solution to provide further colour on the test outcome, but with Denison reporting that the fluid recovery process reached "targeted rates and grades", and that the hydrogeological system responded to lixiviant injection as expected in terms of fluid flow characteristics, uranium recovery and pH trends, we are highly encouraged and more confident the ISR process will be viable on a commercial scale.
- ◆ **Major De-Risking Event Potential in FFT:** A successful FFT at Phoenix addresses key technical risks to this 'unique to the Basin' proposed ISR mining approach. Demonstrating the viability of the approach under commercial conditions could shed significant market discounting. The next steps for the FFT include full lab analysis of the collected uranium bearing solutions. **The results of which could act as a further catalyst for DML and will provide important details about initial uranium grades in solution and additional mineral/metal content picked up by the in-ground leach which will aid in refining the design of the future processing facilities on surface.** Denison is now transitioning to the Neutralization Phase of the FFT targeting completion by year-end.

RECOMMENDED ACTION

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

- ◆ **We maintain our \$2.90 target and a Buy rating.** Denison continues to be rated a top-pick in the uranium space with a top notch technical and management team unlocking significant value in the basin with its unique (to the Athabasca) plan to in-situ leach Phoenix. The approach is perceived as technically challenging, but with a very high potential reward. Ongoing work continues to de-risk and we recommend adding to positions. DML is currently trading at 0.59x consensus NAV and 0.52x our NAV, in-line with premium development-stage Canadian peers and development-stage US ISR peers.

KEY STATISTICS AND METRICS

52-Week High/Low	\$2.64/\$1.19
YTD Performance	-13%
Dividend Yield	N/A
Shares O/S	818.4M
Market Capitalization	\$1,244M
Cash	\$56M
Debt	NIL
Enterprise Value	\$1,188M
Daily Volume (3 mos.)	1,908,000
Currency	C\$ unless noted

HAYWOOD ESTIMATES (CAD)

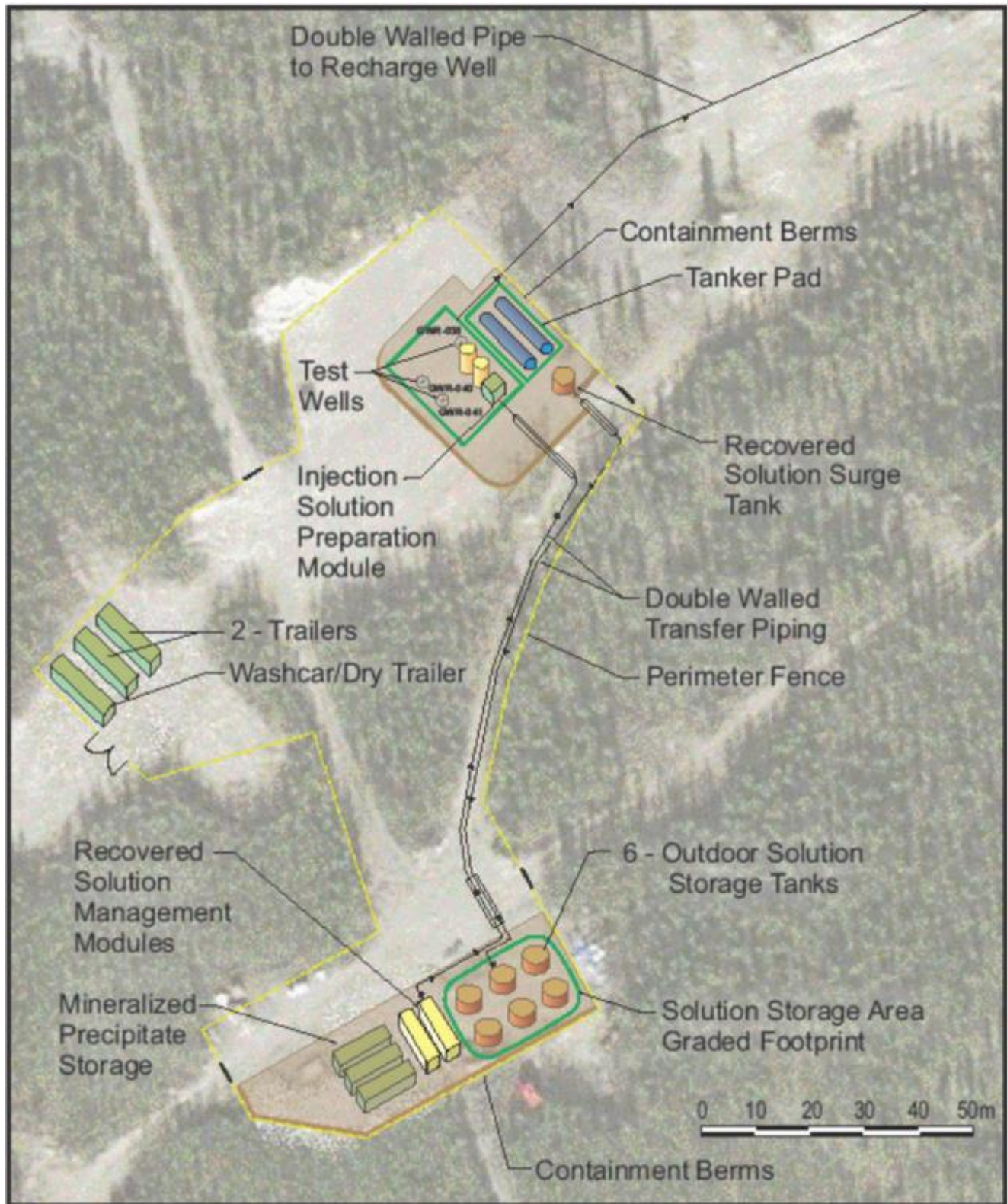
	2021A	2022E	2023E
Revenue (\$M)	\$20.0	\$13.5	\$13.5
U ₃ O ₈ Production	-	-	-
EBITDA (\$M)	(\$16.8)	(\$15.6)	(\$15.6)
CFPS (\$/share)	(\$0.03)	(\$0.01)	(\$0.01)

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 \$2.45 billion, or \$2.85 per fully diluted share.

Figure 1 – Plan Map of Feasibility Field Test Facilities Approved for Construction by the Province of Saskatchewan



Source: Denison Mines



Important Information and Legal Disclosures

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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

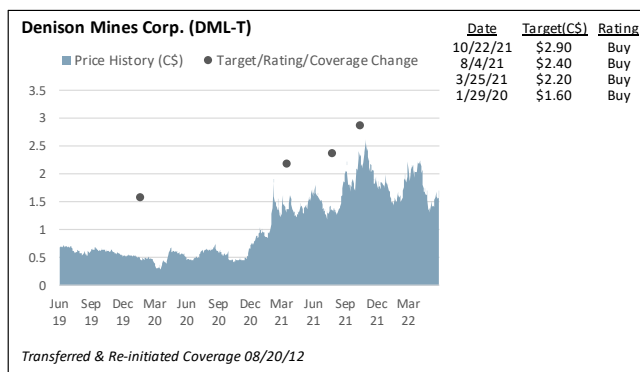
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- ◆ Haywood Securities, Inc. or one of its subsidiaries has received compensation for investment banking services from Denison Mines Corp. (DML-T) in the past 24 months.

Distribution of Ratings (as of October 17, 2022)

	%	#	IB Clients (TTM)
Buy	76.8%	76	71.4%
Hold	10.1%	10	14.3%
Sell	0.0%	0	0.0%
Tender	1.0%	1	4.8%
UR (Buy)	0.0%	0	0.0%
UR (Hold)	0.0%	0	0.0%
UR (Sell)	0.0%	0	0.0%
Dropped (TTM)	12.1%	12	9.5%

Price Chart, Rating and Target Price History (as of October 17, 2022)



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

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