

# DENISON MINES CORP.

## Environmental Approval of Feasibility Field Test

### EVENT

This morning Denison received approval from the Province of Saskatchewan's Minister of Environment to build and operate the Feasibility Field Test (FFT) facility for the high-grade Phoenix deposit, part of the Company's 95%-owned Wheeler River uranium project.

### BOTTOM LINE

**Positive** – The FFT, as it relates to uranium mining, is a novel process, and its environmental approval is therefore a very important and significant de-risking event for Denison.

### FOCUS POINTS

- **FFT Overview** – The size/scope of the FFT is considerable, covering a total area of 8,820 m<sup>2</sup> and comprising multiple buildings, storage tanks, surge tanks, offices, labs, piping networks, etc. It will also use the existing commercial-scale wells completed as part of the in-situ recovery (ISR) test pattern that was installed at Phoenix last year. The FFT is expected to be the final technical field test ahead of feasibility, permitting, and eventual construction of a commercial ISR operation at Wheeler River.
- **Timeline and Cost** – Construction and operation of the FFT will take place over the next 3-4 months at a cost of ~C\$24 MM. Operation of the FFT is comprised of three phases; 1) leaching, 2) neutralization, and 3) recovered solution management. The recovered solution is expected to contain uranium and other by-product metals.
- **Maintaining Buy Rating and Price Target** – We are maintaining our Buy rating and target price of \$4.25/C\$5.25/share on Denison Mines. The Company remains a prime takeover candidate and our preferred uranium developer.

### Recommendation:

**BUY**

Symbol/Exchange: DNN-NYSE/DML-TSX  
Sector: Metals & Mining  
*All dollar values in US\$ unless otherwise noted.*  
Current price: \$1.00/C\$1.30  
One-year target: \$4.25/C\$5.25  
Return to target: 325.0%  
Cash and U<sub>3</sub>O<sub>8</sub> inventory: ~C\$210 MM

### Financial Summary:

Shares O/S (MM)	817.8	52-week range	\$0.91 - \$2.14
Market cap (MM\$)	\$817.8	30D avg vol. ('000)	8,469.8
Market float (MM\$)	\$813.4	Fiscal year-end	31-Dec
<b>Probable Reserves</b>	<b>Tonnes</b>	<b>U<sub>3</sub>O<sub>8</sub> Grade</b>	<b>Attrib. Resource</b>
Wheeler River	1,398,000	3.54%	103.9 MMlb
<b>M&amp;I Resources</b>	<b>Tonnes</b>	<b>U<sub>3</sub>O<sub>8</sub> Grade</b>	<b>Attrib. Resource</b>
McClellan Lake Deposits	376,400	2.18%	4.0 MMlb
Midwest + Waterbury	1,310,000	2.20%	21.4 MMlb
JCU Interests	1,978,387	0.76%	32.9 MMlb
Wheeler River	1,809,000	3.30%	125.5 MMlb
<b>Inferred Resources</b>	<b>Tonnes</b>	<b>U<sub>3</sub>O<sub>8</sub> Grade</b>	<b>Attrib. Resource</b>
McClellan Lake Deposits	510,900	0.68%	1.6 MMlb
Midwest + Waterbury	1,114,000	0.98%	8.4 MMlb
JCU Interests	283,890	1.40%	8.8 MMlb
Wheeler River	82,000	1.70%	2.9 MMlb



**Company profile:** Denison Mines is a uranium exploration company and development company focused on the Athabasca Basin. Its 95%-owned Wheeler River project is one of the highest-grade uranium projects globally.

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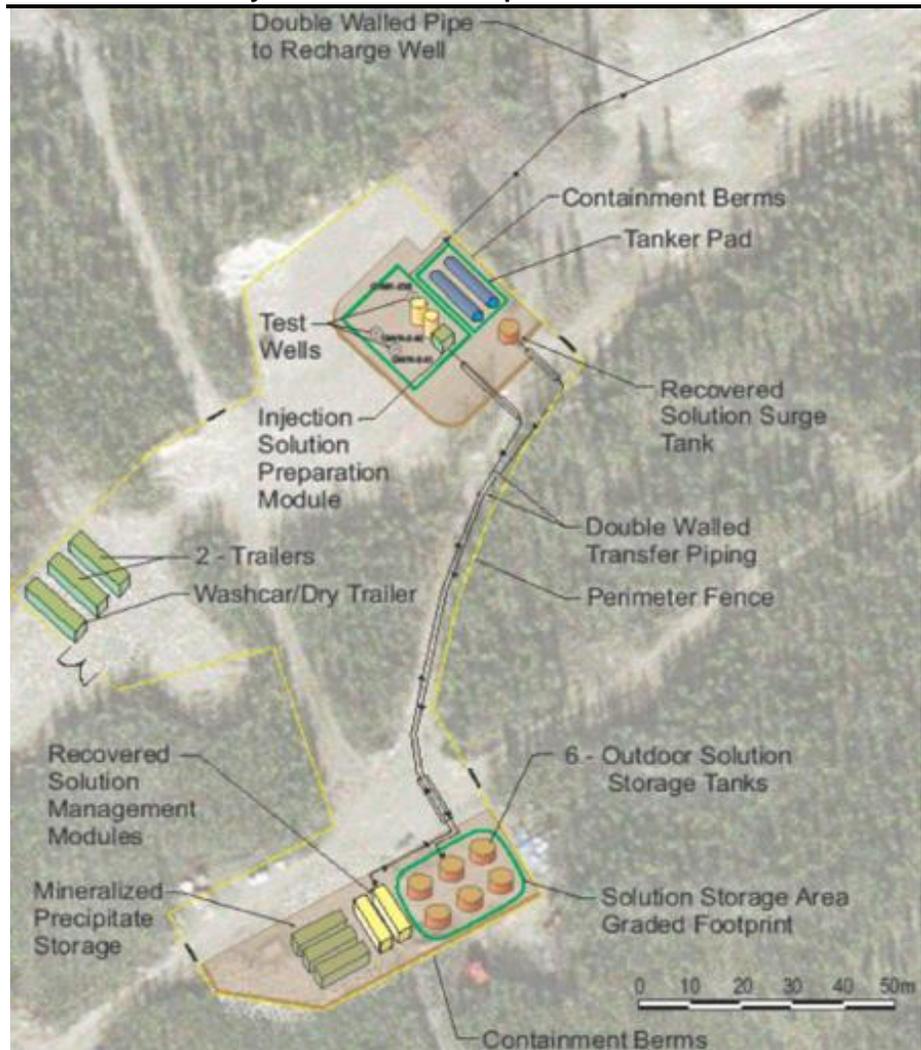
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See disclosure and a description of our recommendation structure at the end of this report.

## ENVIRONMENTAL APPROVAL OF FEAS. FIELD TEST

Denison has received approval from the Saskatchewan's Minister of Environment to build and operate the Feasibility Field Test facility for the high-grade Phoenix deposit, the most important zone at the Company's 95%-owned Wheeler River uranium project. The FFT, as it relates to the uranium mining method proposed by Denison, is a novel process that has been years in the making, dating back to the Pre-Feasibility Study completed in 2018. The environmental approval of the FFT is therefore a very important and significant de-risking event for the Company. A Nuclear Substance License will also be required to store the uranium-bearing solution produced via the FFT, and Denison expects to receive this before commissioning of the FFT is completed.

### Exhibit 1. Feasibility Field Test Plan Map



Source: Denison Mines

## FEASIBILITY FIELD TEST OVERVIEW

The size/scope of the FFT is considerable, covering a total area of 8,820 m<sup>2</sup> and comprising multiple buildings, storage tanks, surge tanks, offices, labs, piping networks, etc. It will also use the existing commercial-scale wells completed as part of the in-situ recovery (ISR) Test Pattern that was installed at Phoenix last

year. The FFT is expected to be the final technical field test ahead of feasibility, permitting, and eventual construction of a commercial ISR operation at Wheeler River. Construction and operation of the FFT will take place over the next 3-4 months at a cost of ~C\$24 MM. Approximately \$5 MM was spent advancing the FFT in Q1/22, and Denison is very well capitalized with ~C\$65 MM in cash to complete the project. Operation of the FFT is comprised of three phases; 1) leaching, 2) neutralization, and 3) recovered solution management.

*The leaching phase* involves the controlled injection of an acidic solution into a high-grade portion of the Phoenix orebody, approximately 400m below surface (the “Leaching Zone”), via the existing Test Pattern, and the recovery of the solution back to surface using existing test wells. The mineralized solution is expected to contain high concentrations of dissolved uranium in addition to by-product copper, iron, molybdenum, and zinc. The recovered solution will be stored in surface tanks (up to a maximum of 500 m<sup>3</sup>) with approved environmental protection measures.

*The neutralization phase* involves the recovery of the remaining solution in the Leaching Zone to verify the effectiveness of the ISR process at returning the mineralized zone to near baseline conditions. A mild alkaline solution will be injected into the Leaching Zone to neutralize the area, reverse any residual effects from the leaching phase, and recover up to an additional 500 m<sup>3</sup> of solution that will also be stored in surface tanks also with approved environmental protection measures.

*The recovered solution management phase* involves separating the solution recovered from the prior two phases into 1) mineralized precipitates, and 2) a neutralized treated solution. Recoverable uranium will report to the former and be temporarily stored on site in surface steel tanks, and the latter (a neutralized solution) will be re-injected into a designated subsurface area. We note that this phase (recovered solution management) will continue beyond the 3–4-month FFT timeline outlined by Denison.

## Exhibit 2. Denison Mines NAVPS Estimate

Asset (C\$)		Value (\$MM)	\$ Per Share	% of NAV
Wheeler River (95%)	7.5%	\$2,763.9	\$3.11	80%
McClellan Lake Mill (22.5%)	7.5%	\$328.7	\$0.37	9%
Waterbury Lake (66.9%)	7.5%	\$72.0	\$0.08	2%
Athabasca Properties (\$/lb)	\$1.00/lb	\$30.0	\$0.03	1%
JCU Properties (\$/lb)	\$1.00/lb	\$54.2	\$0.06	2%
<b>Total Mining Assets</b>		<b>\$3,248.8</b>	<b>\$3.66</b>	<b>94%</b>
Cash and S/T Investments		\$65.3	\$0.07	2%
U3O8 in Inventory		\$152.6	\$0.17	4%
Investment in GoviEx (GXU-TSXv)		\$8.0	\$0.01	0%
Current Debt + S/T Leases		\$0.0	\$0.00	
Long Term Debt + Leases		\$0.0	\$0.00	
Future Equity Financing		\$0.0	\$0.00	
Future Debt Financing		(\$210.0)	(\$0.24)	
<b>Net Asset Value</b>		<b>\$3,264.7</b>	<b>\$3.68</b>	
P/NAV			0.35x	

Source: Cantor Fitzgerald

**MAINTAINING BUY RATING AND PRICE TARGET**

The next 3-4 months will be critical for Denison and Wheeler River, as the FFT results will effectively prove, or disprove, the viability of the ISR mining method proposed by the Company at its Phoenix deposit. We are maintaining our Buy rating and target price of \$4.25/C\$5.25/share on Denison Mines, based on a 1.5x NPV<sub>7.5%</sub> multiple on the Company's Athabasca Basin uranium projects and 1.0x NPV on its net financial position (cash, investments, and U<sub>3</sub>O<sub>8</sub> in inventory). Given the Tier One status of the Wheeler River project, its top spot on the list of potential takeover candidates in the uranium sector, and the Company's balance sheet which is fully cashed-up through to construction, Denison should be a core holding for any/all institutional investors with a uranium focus, energy allocation, or Environmental, Social, and Governance (ESG) criteria. The Company remains our preferred uranium developer.

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The analyst responsible for this report *has* visited the material operations of Denison. No payment or reimbursement was received for the related travel costs.

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**BUY (Speculative):** The stock is attractively priced relative to the company’s fundamentals, however investment in the security carries a higher degree of risk.

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**SELL:** The stock is overpriced relative to the company’s fundamentals, and we expect it to decline from the current price over the next 6 to 12 months.

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