

Mineral Reserves and Mineral Resources



NI 43-101 requires mining companies to disclose mineral reserve and resource estimates using the subcategories of proven mineral reserves, probable mineral reserves, measured mineral resources, indicated mineral resources and inferred mineral resources.

Denison Mineral Reserves and Mineral Resources

The following tables show Denison's current estimates of mineral reserves and mineral resources at December 31, 2022. The estimates are reported in the applicable technical reports prepared in accordance with NI 43-101, adjusted for mining activity where applicable. The summary information below on Denison's proven mineral reserve estimates was prepared from the year-end stockpile survey reported by Orano Canada Inc., operator of the McClean Lake joint venture.

Proven Mineral Reserve Estimates ^(1,14)

Project/Deposit	100% Basis			Company Share ⁽⁹⁾
	Tonnes	Grade % U ₃ O ₈	Pounds of U ₃ O ₈ (,000)	Pounds of U ₃ O ₈ (,000)
McClean - Ore Stockpile ⁽¹⁴⁾	90,000	0.37	726	163
Total Proven Mineral Reserves	90,000		726	163

Probable Mineral Reserve Estimates ^(1,2,3,4,15)

Project/Deposit	100% Basis			Company Share ⁽⁹⁾
	Tonnes	Grade % U ₃ O ₈	Pounds of U ₃ O ₈ (,000)	Pounds of U ₃ O ₈ (,000)
Wheeler River - Phoenix	141,000	19.1	59,700	56,700
Wheeler River - Gryphon	1,257,000	1.8	49,700	47,200
Total Probable Mineral Reserves	1,398,000		109,400	103,900

Indicated Mineral Resource Estimates ^(1,5,15)

Project/Deposit	100% Basis			Company Share ⁽⁹⁾
	Tonnes	Grade % U ₃ O ₈	Pounds of U ₃ O ₈ (,000)	Pounds of U ₃ O ₈ (,000)
Wheeler River - Phoenix ⁽⁷⁾	166,000	19.1	70,200	66,700
Wheeler River - Gryphon ⁽⁷⁾	1,643,000	1.7	61,900	58,800
<i>Wheeler River Subtotal</i>	<i>1,809,000</i>		<i>132,100</i>	<i>125,500</i>
McClean - Caribou	47,800	2.6	2,800	600
McClean - Sue D	122,800	1.1	2,800	600
McClean - McClean North	204,300	2.8	12,200	2,700
<i>McClean Subtotal</i>	<i>374,900</i>		<i>17,800</i>	<i>3,900</i>
Midwest - Midwest Main	453,000	4.0	39,900	10,100
Midwest - Midwest A	566,000	0.87	10,800	2,700
<i>Midwest Subtotal</i>	<i>1,019,000</i>		<i>50,700</i>	<i>12,800</i>
Waterbury - THT (formerly J Zone)	291,000	2.0	12,800	8,600
Total Indicated Mineral Resources	3,493,900		213,400	150,800

Inferred Mineral Resource Estimates ^(1,6,15)

Project/Deposit	100% Basis			Company Share ⁽⁹⁾
	Tonnes	Grade % U ₃ O ₈	Pounds of U ₃ O ₈ (,000)	Pounds of U ₃ O ₈ (,000)
Wheeler River - Phoenix	9,000	5.8	1,100	1,000
Wheeler River - Gryphon	73,000	1.2	1,900	1,800
<i>Wheeler River Subtotal</i>	<i>82,000</i>		<i>3,000</i>	<i>2,800</i>
McClellan - Sue D	24,200	0.39	200	0
McClellan - Sue E ⁽⁸⁾	483,400	0.69	7,300	1,600
McClellan - McClellan North	3,300	0.79	100	0
<i>McClellan Subtotal</i>	<i>510,900</i>		<i>7,600</i>	<i>1,600</i>
Midwest - Midwest Main	793,000	0.66	11,500	2,900
Midwest - Midwest A	53,000	5.8	6,700	1,700
<i>Midwest Subtotal</i>	<i>846,000</i>		<i>18,200</i>	<i>4,600</i>
Waterbury - Huskie	268,000	0.96	5,700	3,800
<i>Waterbury Subtotal</i>	<i>268,000</i>		<i>5,700</i>	<i>3,800</i>
Christie Lake ⁽¹³⁾	588,000	1.57	20,400	3,500
<i>Christie Lake Subtotal</i>	<i>588,000</i>		<i>20,400</i>	<i>3,500</i>
Total Inferred Mineral Resources	2,294,900		54,900	16,300

Historical Estimates

A qualified person has not done sufficient work to verify and classify these historical estimates as current mineral resources for the Company or confirm their reporting of resources is in accordance with NI 43-101 categories, though the Company has no reason to believe the information is not relevant or reliable. The Company is not treating this information as current mineral resources. As these do not represent material properties for the Company at this time, the Company does not currently have any plans to conduct work to verify the historical estimates.

JCU Estimates

Historical Indicated Mineral Resource Estimates ⁽¹⁵⁾

Project/Deposit	100% Basis			Company Share ⁽¹⁰⁾
	Tonnes	Grade % U ₃ O ₈	Pounds of U ₃ O ₈ (,000)	Pounds of U ₃ O ₈ (,000)
Millennium ⁽¹¹⁾	1,442,600	2.39	75,900	11,400
Kiggavik ⁽¹²⁾	10,418,000	0.47	127,300	21,500
Total Indicated Mineral Resources	11,860,600		203,200	32,900

Historical Inferred Mineral Resource Estimates ⁽¹⁵⁾

Project/Deposit	100% Basis			Company Share ⁽¹⁰⁾
	Tonnes	Grade % U ₃ O ₈	Pounds of U ₃ O ₈ (,000)	Pounds of U ₃ O ₈ (,000)
Millennium ⁽¹¹⁾	412,400	3.19	29,000	4,400
Kiggavik ⁽¹²⁾	731,000	0.28	5,400	900
Total Inferred Mineral Resources	1,143,400		34,400	5,300

McClellan South

McClellan South Historical Estimates ⁽¹⁶⁾

Deposit	100% Basis			Company's Share
	Tons (,000)	Grade (% U ₃ O ₈)	Pounds of U ₃ O ₈ (,000)	Pounds of U ₃ O ₈ (,000)
Southwest Pod	47.6	2.10	2,000	500
Southeast Pod	126.7	0.73	1,900	400

Notes to Mineral Resource and Mineral Reserve & Historical Estimates Tables:

- (1) CIM definitions were followed for classification of mineral reserves and mineral resources. Mineral resources are not mineral reserves and do not have demonstrated economic viability.
- (2) Mineral reserves for the Phoenix deposit are reported at the mineral resource cut-off grade of 0.8% U₃O₈. The mineral reserves are based on the block model generated for the May 28, 2014 mineral resource estimate. A mining recovery factor of 85% has been applied to the mineral resource above the cut-off grade.
- (3) Mineral reserves for the Gryphon deposit are estimated at a cut-off grade of 0.58% U₃O₈ using a long-term uranium price of US\$40/lb, and a US\$/CAD\$ exchange rate of 0.80. The mineral reserves are based on the block model generated for the January 30, 2018 mineral resource estimate. The cut-off grade is based on an operating cost of \$574/tonne, milling recovery of 97%, and a 7.25% fee for Saskatchewan royalties (basic royalty plus resource surcharge).
- (4) Mineral reserves are stated at a processing plant feed reference point and include diluting material and mining losses.
- (5) The indicated mineral resources were estimated at various cut-off grades. They are:

• Phoenix:	0.80% U ₃ O ₈	• McClellan North:	0.10% U ₃ O ₈
• Gryphon:	0.20% U ₃ O ₈	• Midwest Main:	0.10% U ₃ O ₈ (0.085% U)
• Caribou:	0.10% U ₃ O ₈	• Midwest A:	0.10% U ₃ O ₈ (0.085% U)
• Sue D:	0.10% U ₃ O ₈	• THT (J Zone):	0.10% U ₃ O ₈
- (6) The inferred mineral resources were estimated at various cut-off grades. They are:

• Phoenix:	0.80% U ₃ O ₈	• McClellan North:	0.10% U ₃ O ₈
• Gryphon:	0.20% U ₃ O ₈	• Midwest Main:	0.10% U ₃ O ₈ (0.085% U)
• Sue D:	0.10% U ₃ O ₈	• Midwest A:	0.10% U ₃ O ₈ (0.085% U)
• Sue E:	0.10% U ₃ O ₈	• Huskie:	0.10% U ₃ O ₈
- (7) Indicated mineral resources for Phoenix and Gryphon deposits are inclusive of probable mineral reserves.
- (8) The operator conducted confirmatory drilling on a portion of the Sue E mineral resources outside the designated pit and late in 2006 submitted a preliminary analysis detailing an inferred mineral resource of approximately 2 million pounds on a 100% basis in this area, as compared to the 7.3 million pounds that Scott Wilson Roscoe Postle Associates Inc. ("**Scott Wilson RPA**", succeeded by Roscoe Postle Associates Inc. ("**RPA**") and then acquired by SLR Consulting Limited, ("**SLR**"), estimated in its February 2006 technical report. The mineral resource has not been re-estimated using the new drill information.
- (9) As at December 31, 2021, pursuant to the terms of the agreements with its applicable joint venture partners and subsequent to its acquisition of JCU in August 2021, the Company had an effective 95.00% interest in the Wheeler River project, a 22.50% interest in the McClellan Lake property; a 25.17% interest in the Midwest project; and a 66.90% interest in the Waterbury Lake property.
- (10) Denison's share has been calculated as 50% of the product of JCU's percentage interest in the applicable project multiplied by the estimated mineral resources on a 100% basis.
- (11) Millennium mineral resources as reported by Cameco as of December 31, 2021 on their website at <https://www.cameco.com/businesses/uranium-projects/millennium/reserves-resources>. Cut-off grades and other assumptions, parameters and methods used to estimate resources are unknown.
- (12) Kiggavik mineral resources as reported by Orano in their 2020 Activities Report available on their website at https://www.orano.group/docs/default-source/orano-doc/groupe/publications-reference/publication-groupe/orano-annual-activity-report-2020-online.pdf?sfvrsn=b8263a0d_27 and converted from tonnes U to pounds U₃O₈ and from %U to %U₃O₈. Cut-off grades and other assumptions, parameters and methods used to estimate resources are unknown.
- (13) Christie Lake mineral resources, and relevant assumptions, parameters and methods used for estimating, are documented in the "Technical Report for the Christie Lake Uranium Project, Saskatchewan, Canada"

with an effective date of December 31, 2021 and to be filed under the Company's profile on SEDAR and EDGAR in March 2023. The Christie Lake mineral resources were estimated at a cut-off grade of 0.2% U₃O₈.

(14) The summary information on Denison's proven mineral reserve estimates was prepared from the year-end stockpile survey reported by Orano Canada, the MLJV operator.

(15) Numbers may not add due to rounding.

(16) The historical estimates do not comply with the requirement of NI 43-101. CIM definitions are not used.

Technical Reports

For full details relating to Denison's current estimates of mineral reserves and mineral resources for its material properties, reference should be made to the applicable technical reports for the properties, available on the Company's profile on the SEDAR website at www.sedar.com, as detailed below.

Wheeler River

Technical report entitled "Prefeasibility Study Report for the Wheeler River Uranium Project Saskatchewan, Canada" dated October 30, 2018.

Waterbury Lake

Technical report entitled "Preliminary Economic Assessment for the Tthe Heldeth Túé (J Zone) Deposit, Waterbury Lake Property, Northern Saskatchewan, Canada" effective October 30, 2020.

McClellan Lake

Technical reports: (A) the "Technical Report on the Denison Mines Inc. Uranium Properties, Saskatchewan, Canada" dated November 21, 2005, as revised February 16, 2006, (B) the "Technical Report on the Sue D Uranium Deposit Mineral Resource Estimate, Saskatchewan, Canada" dated March 31, 2006, and (C) the "Technical Report on the Mineral Resource Estimate for the McClellan North Uranium Deposits, Saskatchewan" dated January 31, 2007.

Midwest

Technical report entitled "Technical Report with an Updated Mineral Resource Estimate for the Midwest Property, Northern Saskatchewan, Canada" dated March 26, 2018.

Qualified Persons

Chad Sorba, P.Geol., Denison's Director Technical Services, and Andy Yackulic, P.Geol., Denison's Director Exploration, are each a "Qualified Person" in accordance with the requirements of NI 43-101, and have reviewed and approved this disclosure.